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**Teaching Plan** Session: 2022-2023

**JABALPUR (M.P.)** 



SWATI MISHRA

## **MATHEMATICS**

**Department of Mathematics & Computers** 

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## Govt. M. H. College of Home Science & Science for Women (Autonomous), Jabalpur (M.P.) Department of Mathematics & Computer

Teaching Plan Session-2022-23 Subject- Numerical Methods & Scientific Computation Class-B.Sc. III Year Faculty Name-Swati Mishra

Month	Topic
July	Definition and examples of Vector space, Subspaces, Sum and direct sum of subspaces Basis Finite dimensional vector space and dimension Existence theorem Extension theorem Invariance of the mamber of elements
August	Dimension of sum of subspaces Quotient space and its dimension Linear transformation Change of basis, dual space, bi-dual space and natural isomorphism
September	Adjoint of a linear transformation Eigenvalues and Eigenvectors of a linear transformation  Dingenalization
October	Bisection, Regula Falsi, Secant, Newton-RaphsonMethods to Solve System of Linear Equations: Direct method for solving system of linear equations. Gauss elimination. LU decomposition Cholesky decomposition. Iterative method.
November	Jacobi, Gauss-Seidel  Numerical Solution of Ordinary Differential Equations: Single step methods, Picard  Taylor's seriesInterpolation and Numerical Integration: Lagrange interpolation, Finite difference operators Interpolation formula using Differences,
December	Euler, Runge-Kutta Multistep methods Predictor-corrector Modified Euler Milne-Simpson Methods for Solving Algebraic and Transcendental Equations:
January	Gregory-Newton Forward Difference Interpolation Gregory-Newton Backward Difference Interpolation Function Forward Difference Interpolation Function Gregory Integration Full Gregory Integration
February	Revision
March	Rev J. A
April	Estra

## Govt. M. H. College of Home Science & Science for Women (Autonomous), Jabalpur (M.P.) Department of Mathematics & Computer Tooshing Plan Session 2023 23 Subject Plant 1 Mark Street Pla

Teaching Plan Session-2022-23 Subject- Discrete Mathematics Class-B.Sc. III Year

	Faculty Name-Swati Mishra							
S.No.	Month	Topic						
1	July	Boolean functions-disjunctive & cunjunctive normal forms (canonical & dual canonical), Bool's expansion theorem, Relations- Binary relation						
2	August	Inverse relation, Composite relation, Equivalence relation, Equivalence classes & its properties Partition of a set.						
3	September	Partial order relation, Partially ordered sats, totally ordered sets, Hasse diagram, maximal and minimal element						
4	October	first and last element Lattice- definition and examples, dual lattice, bounded lattice, distributive lattice, complemented lattice.						
5	November	Graph-Definition, types of graphs, Subgraphs, walk, path, circuit, connected and disconnected graphs, Euler graph, Hamiltonian path and circuit, shortest path in weighted graph, Dijkstra's Algorithm for shortest paths.						
6	December	Trees and its properties, Rooted tree, Binary tree, Spanning tree, Rank and nüllity of a graph, Kruskal's Algorithm and Prim's Algorithm.						
7	January	Matrix representation of graphs Incidence and Adjacency matrix, Cutset and its properties. Planar graphs (definition) Kuratowski's two graphs						
8	February	Revision						
9	March	Revision						

Exam

10

April

## **Department of Mathematics & Computer**

**Teaching Plan Session-2022-23** 

Subject- Real Complex Analysis Class-B.Sc. III Year

## Faculty Name-Swati Mishra

S.No.	Month	- active reality reality and a second
3.140.	WIOTILIT	Topic
1	July	Riemann integral, Integrability of continuous and monotonic functions. The fundamental theorem of integral calculus. Mean value theorems of integral calculus, Partial derivatives and differentiability of real-valued functions of two variables.
2	August	Schwarz's and Young's theorem. Implicit function theorem. Improper integrals and their convergence, Comparisn tests, Abel's and Dirichlet's tests. Frullani's integral as a function of a parameter.
3	September	Continuity, derivability and integrability of an integral of a function of a parameter. Fourier series of half and full intervals. Definition and examples of metric spaces. Nieghbarhoods. Limit points. Interior points.  Open and closed sets.
4	October	Closure and interior Boundary points. Subspace of metric space, Cauchy sequences, Completeness,  Cantor's intersection theorem.
5	November	Contraction principle, Real number as a complete ordered field. Dense subsets Baire Category theorem.  Separable, second countable and first countable spaces, Continuous functions. Uniform continuity,  Properties of continuous fuctions on compact sets.
6	December	Continuity and differentiability of complex functions. Analytic functions. Cauchy-Reimann equations.  Harmonic functions, Cauchy's Theorem, Cauchy's Integral formula
7	January	Power series representation of an analytical funcion, Taylor's series, Laurant's series, Singularities, Cauchy's Residue Theorem, Contour Integratrion.
8	February	Revision
9	March	Revision
10	April	Exam

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# Govt. M. H. College of Home Science & Science for Women (Autonomous), Jabalpur (M.P.) Department of Mathematics & Computer Teaching Plan Session-2022-23 Subject- Abstract Algebra & Linear Algebra Class-B.Sc. II Year Faculty Name-Swati Mishra

S.No.	Month	Topic
1	July	Groups, Subgroups and their basic properties
2	August	Cyclic groups Coset decomposition Lagrange's and Fermat's theorem Normal subgroups  Quotient groups
3	September	Homomorphism and Isomorphism of groups Fundamental theorem of homomorphism Transformation and permutation group Sa (n <5) Cayley's theorem
4	October	Definition and basic properties of rings Ring homomorphism Subring Ideals
5	November	Polynomial ring, Quotient ring Definition and examples.
6	December	Group automorphism, Inner automorphism, Group of automorphisms
7	January	Fing homomorphism, Subring, Ideals, Quotient ring
8	February	Polynomial ring, Integral domain, Field.
9	March.	Revision
10	April	Exam

## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.) 2023-24 DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY

Class: - B.Sc II<sup>nd</sup> Year Session: 2023-24 Paper: -1 (Diversity of chordates and comparative anatomy)

## TEACHING PLAN FOR THE ACADEMIC YEAR\_\_\_\_\_

SR.NO	Month & no. of working days.	Week	No. of periods per week	Topics to be covered	Co-Curricular Activity
1.	July	1	2	General characters and classification: - Chordata	
2.	July	2	2	Up to class, according to Parker and Haswell	
3.	July	3	2	Classification of protochordate (Urochordata)	
4.	July	4	2	Type study of Herdmania	
5.	August	1	2	Classification of cephalochordate	
6.	August	2	2	Type study of amphioxus, comparison of Petromyzon and myxine	
7.	August	3	2	Pisces: - Classification	
8.	August	4	2	Accessory respiratory organ of fishes/ parental care	
9.	September	1	2	Amphibia: - Classification	
10.	September	2	2	Parental care Pedomorphosis – amphibia	
11.	September	3	2	Reptilia- Classification	
12.	September	4	2	Poisonous and non-poisonous snakes & biting mechanism	
13.	October	1	2	CCE 1	
14.	October	2	2	Aves: - Introduction of Birdman & classification	
15.	October	3	2	Migratory & flight adaption in birds	
16.	October	4	2	Mammalia: - classification	
17.	November	1	2	Adaptive radiation	
18.	November	2	2	Introduction of ZSI	

19.	November	3	2	Comparative anatomy of vertebrates
20.	November	4	2	Integument and it's derivatives
21.	December	1	2	CCE 2
22.	December	2	2	Appendicular skeleton (Limbs and girdles)
23.	December	3	2	Digestive system
24.	December	4	2	Respiratory system
25.	January	1	2	Comparative anatomy- Aortic arches
26.	January	2	2	Comparative anatomy of Heart
27.	January	3	2	CCE 3
28.	January	4	2	Comparative study of Brain
29.	February	1	2	Comparative study of Urinogenital system
30.	February	2	2	Continued
31.	February	3	2	Study of eye
32.	February	4	2	Study of ear
33.	March	1	2	Revision
34.	March	2	2	Topic- Presentation
35.	March	3	2	Final Exam

**Signature of Lecturer** 

**Signature of HOD** 

**Signature of Principal** 

## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.)

#### **DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY**

Session: 2023-24 (AS PER NEP)

Class: B.Sc III Year (NEW) Major Paper I: Group A (Aquaculture)

## **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE) (AS PER NEP)**

S. N.	Month & No. of Working Days	Credit	Week	No. of Periods Per Week	Topics to be covered	Co-Curricular Activity
1			1 Week	2	Aquaculture: Definition, History & Indian Traditional knowledge	
	July - 25	10 Credit	2 Week	2	Planning for higher Aquaculture productivity, Present strategies & future policies	
		(Unit - I)	3 Week	2	Problems of Aquaculture	
			4 Week	2	Significance of Aquaculture - as food and as non-food products	Visit to Museum
2			1 Week	2	Aquaculture resources in India, Common Aquatic Weeds and its control	
	August - 25		2 Week	2	Prawn Culture : History , commercial value	
		12 Credit	3 Week	2	Biology of fastest growing species of freshwater Prawn, Lifecycle	Youth Festival
			4 Week	2	Culture technology and Methods of Prawn Fishing	
3		(Unit - II)	1 Week		CCE - I	
	September-		2 Week	2	Preservation and processing of Prawns	
	24		3 Week	2	Parasite and diseases of Prawns and its control	
			4 Week	2	Aquatic insects : Control of Predatory Insects	
4			1 Week	2	Edible Oyster Culture: Culturable species of Oysters and their distribution	
	0-1-1 22		2 Week	2	Biology of Oyster, Culture technique, Rearing and harvesting of Oyster	
	October - 23	12 Credit	3 Week	2	Preservation of Oysters, Use of Oysters and its shell	Student Seminar
		(Unit - III)	4 Week	2	Pearl Culture: History, Pearl producing sites, Pearl producing animals	
5			1 Week		CCE - II	
) 5	November -		2 Week	2	Biology of Pearl oysters, Process of Pearl formation, Pearl industry in India	Project/Internship
	November - 24		3 Week	2	Pearl culture techniques, Composition, Types, Enemies, Economic value	
	27		4 Week	2	Fresh water edible fishes of India: Biology of major carp fishes, minor carp fishes, cat fishes, live fishes and miscellaneous fishes	

		Total Credit 60			Session End - Examinations (Practical and Theory)	
		Unit (I-V)	4 Week	Revision	Revision	
	March - 23		3 Week	2	Definition and History of Plankton	Question Bank
			2 Week	2	Plankton	
9			1 Week	2	Types of aquarium fishes, Maintenance of aquarium	
		(Unit - V)	4 Week	2	Types and significance of aquatic plants	Remedial Class
	February - 25	12 Credit	3 Week	2	Requisites for fabrication of aquarium	
	F-h		2 Week		Institutional Visit/Tour/trip	
8			1 Week	2	Aquarium : Introduction, History, Types of Aquarium	
			4 Week	2	Fish preservation	
	January - 25		3 Week	2	Transport of fishes - open type and close type	
	1 25		2 Week		CCE - III	
7			1 Week	2	Types of ponds and its management	
			4 Week	2	Carp culture techniques - Indian	
	24	(Unit - IV)	3 Week	2	Carp culture: Introduction	Poster
	December -	14 Credit	2 Week	2	Marine water edible fishes of India : Hilsa	
6			1 Week	2		

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## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.)

#### **DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY**

Session: 2023-24 (AS PER NEP)

Class : B.Sc III Year (NEW) Major Paper II : Group A (Wild Life)

## **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE) (AS PER NEP)**

S. N.	Month & No. of Working Days	Credit	Week	No. of Periods Per Week	Topics to be covered	Co-Curricular Activity
1			1 Week	2	Wildlife and Conservation : Introduction, Historical background	
	July - 25	12 Credit	2 Week	2	Values of wild life and valuable products of forests and wild animals	
		(Unit - I)	3 Week	2	Important wild animals of India	
			4 Week	2	Causes of extinction of forests & wild life : Direct and Indirect destruction	Visit to Museum
			1 Week	2	Importance and necessity of conservation of wild life and forests	
2	August - 25		2 Week	2	Principles of conservation and management, Conservation ethics & World wildlife conservation strategies	
			3 Week	2	Indian board for wildlife, wild life protection act	Youth Festival
		12 Credit		2	Indian forest laws and their amendments Indian forest act, Forest conservation act	
		(Unit - II)	4 Week		and Forest legislation of India	
3			1 Week		CCE - I	
	September-		2 Week	2	National organizations	
	24		3 Week	2	International organizations	
			4 Week	2	Ex situ conservation	
4			1 Week	2	National Parks, Sanctuaries and Biosphere Reserves of India, Methods of conservation and tracking of large, territorial vertebrates	
	Ostobor 22		2 Week	2	Threatened and Endangered Species	
	October - 23	12 Credit	3 Week	2	Major threats to wild life, Concept of threatened species.	Student Seminar
		(Unit - III)	4 Week		IUCN categories of threatened plants and animals - Endangered, Vulnerable,	
				2	Rare, Threatened, Out of danger, Intermediate species.	
5	November -		1 Week		CCE - II	

	24		2 Week	2	Special projects for endangered species- Project Tiger, Gir Lion Project.	Project/Internship	
			3 Week	2	Musk Deer Project, Crocodile Project and Elephant Project.		
			4 Week	2	Biotelemetry and its utility in wildlife.		
6			1 Week	2	Population Estimation		
	December -		2 Week	2	Estimation and Computation of Population density, Natality, Birth rate, Mortality and sex ratio		
	24	<b>12 Credit</b> (Unit - IV)	3 Week	2	Census method for density estimation of wild animals- Direct count method- Vehicle transect or road count method, King's census Indirect count method - Identification of Pug Marks, Hoof marks, Hair, Scats,	Poster	
			4 Week	_	Pellet groups, Nest, Antlers, Faecal analysis of Ungulates and Carnivores		
7			1 Week	2	Management planning of wildlife in protected areas, estimation of carrying capacity, Ecotourism, Wild life Tourism in forests		
	January - 25		2 Week		CCE - III		
	•		3 Week	2	Anthropogenic activities, livelihood of local communities in Reserved Forest Areas		
			4 Week		Project/Internship File Submission		
8			1 Week	2	Care of injured and diseased animal. Equipment for animal		
	F-1 2F		2 Week		Institutional Visit/Tour/trip		
	February - 25	12 Credit	3 Week	2	Importance of forests, their conservation measures and management.		
		(Unit - V)	4 Week	2	Remote sensing and GIS, Food, Forage, Cover, Browse and Cover Estimation.	Remedial Class	
9			1 Week	2	Role of Tribal Communities in Management of Forest areas, Management challenges in Tiger Reserves		
			2 Week	2	Elementary Idea of wild life forensics		
	March - 23		3 Week	2	Opportunities of employment in Reserve Forest Areas	Question Bank	
		Unit (I-V)	4 Week		Revision		
		Total Credit 60			Session End - Examinations (Practical and Theory)		

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## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.)

#### **DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY**

Session: 2023-24 (AS PER NEP)

Class: B.Sc III Year (NEW) Minor Paper II: Genetics

## **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE) (AS PER NEP)**

S. N.	Month & No. of Working Days	Credit	Week	No. of Periods Per Week	Topics to be covered	Co-Curricular Activity
_			1 Week	2	Introduction and Historical background of genetics	
1	July 25	12 Credit	2 Week	2	Definition, Scope and Importance of Genetics	
	July - 25	(Unit - I)	3 Week	2	Chromosomes: Transmitters of Heredity	
				2	Structure and Organization of Chromosomes, Types of Chromosomes, Chemical	
			4 Week		composition of chromosomes	Visit to Museum
2			1 Week	2	Nucleocytoplasmic Interaction, Mendel's laws of Heredity	
	August - 25		2 Week	2	Variations: Types and genetic basis of Variations	
			3 Week	2	Chemistry of Gene - Nucleic acids and their structure	Youth Festival
		12 Credit	4 Week	2	Concept of DNA Replication	
3		(Unit - II)	1 Week		CCE - I	
	September-		2 Week	2	Nucleosome (Solenoid Model)	
	24		3 Week	2	Types of genes : Split genes, Overlapping genes and Pseudogenes	
			4 Week	2	Genetic code - Introduction	
4			1 Week	2	Genetic Tables, Properties of Genetic Code	
	October - 23		2 Week	2	Gene linkage and recombination	
	October - 23	12 Credit	3 Week	2	Sex-determination Sex-determination	Student Seminar
		(Unit - III)	4 Week	2	Sex-linked Inheritance	
5	November:		1 Week		CCE - II	
	November - 24		2 Week	2	Structural changes in chromosomes : Translocation and Inversion	Project/Internship
	24		3 Week	2	Numerical changes in chromosomes : Aneuploidy, Polyploidy	

			4 Week	2	Mutation: Types of mutations and mutagens		
6			1 Week	2	Human chromosomes : Human Karyotype		
	December -		2 Week	2	Human Genome Project		
	24		3 Week	2	Common genetic disorders	Poster	
		12 Credit	4 Week	2	Multiple factors and blood groups		
7		(Unit - IV)	1 Week	2	Twins: Fraternal, Maternal and Siamese twins		
	January 25		2 Week		CCE - III		
	January - 25		3 Week	2	Transgenic and knockout animals and their applications		
			4 Week		Project/Internship File Submission		
8			1 Week	2	Gene Therapy : Germ line, and Somatic cell gene therapy		
	Folomiomi 2F	12 Credit	2 Week		Institutional Visit/Tour/trip		
	February - 25		3 Week	2	Recombinant DNA technology		
		(Unit - V)	4 Week	2	Gene cloning	Remedial Class	
9			1 Week	2	Gene library		
			2 Week	2	PCR and Hybridization techniques		
	March - 23		3 Week	2	DNA finger printing	Question Bank	
	Iviai Cii - 23	Unit (I-V)	4 Week	Revision			
		Total Credit 60		Session End - Examinations (Practical and Theory)			

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## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.)

#### **DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY**

Session: 2019-20

Class: B.Sc III Year (OLD) Paper: I (Genetics)

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2019-20 (UNDER GRADUATE)**

S.N.	Month & No. of Working Days	Week	No. of Periods Per Week	Topics to be covered	Co-Curricular Activity
1		1 Week	3	Genetics - Introduction	
	July - 27	2 Week	3	About Mendel and Terminology	
		3 Week	3	Heredity and Genetic material	
		4 Week	3	Mendel's laws of inheritance	Visit to Museum
2		1 Week	3	Variations : Sources and types	
	August - 24	2 Week	3	Structure, molecular organization and function of DNA	
		3 Week	3	RNA and types of RNA	
		4 Week	3	DNA Replication in Prokaryotes	
3		1 Week	3	Nucleosome (Solenoid model)	Assignments
	Contombor 24	2 Week	3	Chemistry of Gene	
	September- 24	3 Week	3	Genetic Code - Introduction	CCE - I
		4 Week	3	Genetic Code	
4		1 Week	3	Transcription in Prokaryotes	
	October - 25	2 Week	3	Translation in Prokaryotes	
	October - 25	3 Week	3	Gene expression: Regulation of Protein synthesis	Student Seminar
		4 Week	3	Lac Operon Model - Regulator	
5		1 Week	3	Split gene, overlapping gene, Pseudo-gene	
	November - 25	2 Week	3	Linkage and crossing over: Types and significance	
	November - 25	3 Week	3	Sex determination: Chromosomal and genetic balance theory	
		4 Week	3	Sex linked inheritance (Haemophilia, Colour blindness)	

		4 144 1	_		
6		1 Week	3	Structural and numerical changes in chromosomes	
		2 Week	3	Mutation : Types and Mutagens	
	December - 25	3 Week	3	Human Karyotype and Human Genome Project	Model
					Preparation
		4 Week	3	Sex linked inheritance (Haemophilia, Colour blindness)	Test/Poster
7		1 Week	3	Multiple allele and inheritance of blood group	
	26	2 Week	3	Autosomal and Sex Chromosome Syndromes in Human	CCE - II
	January - 26	3 Week	3	Genetic diseases in Human: Sickle cell anemia, Albinism, Thalassemia	
		4 Week	3	Recombinant DNA technology and Gene Cloning	Project Work
8		1 Week	3	Polymerase Chain Reaction (PCR)	Surprised Test
		2 Week	3	Blotting - Southern, Northern and Western	
	February - 24	3 Week	3	DNA finger printing	
		4 Week	3	Gene therapy	Remedial
					coaching
9		1 Week	3	Genetic Counseling	Question Bank
		1 week	5		(QB) discussion
	March - 24	2 Week	3	Revision	
		3 Week		Sassian End Evaminations (Drastical and Theory)	
		4 Week		Session End - Examinations (Practical and Theory)	

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## Govt. M. H. College of Home Science & Science for Women (Auto), Jabalpur (MP) Dept. of Zoology & Biotechnology, Subject—Biotechnology

#### **Session- 2023-24**

Class -B. Sc. III Year (MINOR)

Paper -APPLIED BIOTECHNOLOGY

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023 – 24 (UNDERGRADUATE)**

S.	Months &	Week	No. of	Topics to be Covered	Co – Curricular
No.	No. of working		Periods		Activity
	Days		per week		
1		1 Week	2		
	July -25	2 Week	2		
2		1 Week	2	Environmental Pollution	
	August- 25	2 Week	2	Public assessment water quality	
3		1 Week	2	Treatment of waste water	
	September -24	2 Week	2	Biopesticide	
4		1 Week	2	Microbial leaching	
	October - 23	2 Week	2	Biodegradation	Group discussion
5	November - 24	1 Week	2	Modern Fuel	
		2 Week	2	National and International Stratergy of organic Farming	
6		1 Week	2	Organic food quality and Human health	
	December -24	2 Week	2	Stratergies for controlling Pathogen Transfer	
7		1 Week	2	Integrated Pest Management, Genetically Modified Crops	
	January- 25	2 Week	2	Biofertilizers, Fermentation Technology	
8	February -25	1 Week	2	Basic Principle of Bioprocess Technology, Primary and Secondary Screening	
		2 Week	2	Strain improvement, inoculum Development, Industrial Sterilization Process Scale up	
		3 Week	2	Product Recovery, Types of Fermentation, Factor Affecting fermentation Process,	
		4 Week	2	Fermentation Design, History of Bioinformatics	
9	MARCH- 25	1 Week		Computer in Biological Data base types, TRIPS, GATT, WTO	
		2 Week		Introduction to Central Tendency and dispersion measurement	
		3 Week		Data types and Presentation mode, Gene Potential Marker and Varient	
		4 Week		IPR forms and Scope, Plant variety Protection act, animal breeder right	

Signature of Lecturer

Signature of HOD

Signature of Co-Ordinator Biotechnology

Signature of Principal

#### <u>Dept. of Zoology & Biotechnology</u>, Subject – Biotechnology

**Session- 2023-24** 

Class -B. Sc. II Year

Paper I – Basic Molecular Biology

#### TEACHING PLAN FOR THE ACADEMIC YEAR 2022 – 23 (UNDERGRADUATE)

S. No.	Months &	Week	No. of	Topics to be Covered	Co – Curriculai	r
	No. of		Periods		Activity	
	working		per week			
	Days					
1		1 Week	2	Anatomy of Gene, Gene structure of Prokaryotes		
	July -26	2 Week	2	Gene structure of Eukaryotes and flow of Genetic Information		
		3 Week	2	Hormones and their receptors		
		4 Week	2	Second messanger ,Signalling through G protein coupled receptor		
2		1 Week	2	Oncogenes, Tumour Supressor gene, Cancer and cell cycle	Assignments and	Group
	August- 23				Discussion	
		2 Week	2	Apoptosis and Necrosis		
		3 Week	2	Prokaryotic and Eukaryotic replication		
		4 Week	2	Model of replication, Unit of replication		
3		1 Week	2	Replication-Initiation, elongation and termination, Replication inhibitors		
	September -	2 Week	2	DNA reversal, Excision repair-Nucleotide and base excision		
	26	3 Week	2	Mismatch reapair, Translesion DNA synthesis		
		4 Week	2	Recombination repair , SOS response	Flex making	
4		1 Week	2	Prokaryotic Transcription		
	October - 24	2 Week	2	Eukaryotic Transcription		
		3 Week	2	RNA polymerases		
		4 Week	2	General and specific transcriptional factor		
5	November -	1 Week	2	Promotor anfd insulator		
	25	2 Week	2	Repressor and enhancer		
		3 Week	2	Prokaryotic Translation		
1		4 Week	2	Eukaryotic Translation		

Signature of Lecturer

Signature of HOD

Signature of Co-Ordinator Biotechnology

Signature of Principal

S. No.	Months & No. of working Days	Week	No. of Periods per week	Topics to be Covered	Co – Curricular Activity
6	December -27	1 Week	3	Translation Machinary, Initiation , elongation and termination factor	Question Bank Preparation
		2 Week	3	Translational Inhibitors	
		3 Week	3	Regulation of translation	
		4 Week	3	DNA binding Proteins	
7		1 Week	3	Post transcriptional control of gene expression	
	January- 25	2 Week	3	Gene regulation in bacteria	Model making competition(Jigyasa)
		3 Week	3	Gene silencing	
		4 Week	3	Overview of ribozyme technology	
8		1 Week	3	Control of Gene expression in Eukaryotes	
	February -23	2 Week	3	Enhancer, Chromatin remodelling	
		3 Week	3	Mutation:Types and Causes	
		4 Week	3	Mutation types	Science day celebration
9		1 Week	3	Lethal, Conditional, Biochemical	
	March- 23	2 Week	3	Loss of function and Gain of Function	
		3 Week	3	Revision	Remedial Classes
		4 Week	3	Revision	

#### Dept. of Zoology & Biotechnology, Subject-Biotechnology

**Session- 2023-24** 

Class -B. Sc. II Year

Paper II – Recombinant DNA Technology

## TEACHING PLAN FOR THE ACADEMIC YEAR 2022 – 23 (UNDERGRADUATE)

S. No.	Months & No. of working Days	Week	No. of Periods per week	Topics to be Covered	Co – Curricular Activity
1		1 Week	2	Introduction, History of gene clonong	
	July -26	2 Week	2	The advent and importance	
		3 Week	2	Polymaerase chain reaction	
		4 Week	2	Purification of DNA from living cell	
2	August- 23	1 Week	2	Manipulation of purified DNA	Assignments and Presentation
		2 Week	2	Introduction of DNA into living cells	
		3 Week	2	Plasmids	
		4 Week	2	Cloning vactor pBr 322,Bacteriophage,Cosmid	
3		1 Week	2	Phagemid, Shuttle vectors	
	September -	2 Week	2	Cloning vectors of <i>E.coli</i>	
	26	3 Week	2	Lamda and other high capacity vectors	
		4 Week	2	Cloning vectors of Eukaryotes	Flex making
4		1 Week	2	Genomics	
	October - 24	2 Week	2	cDNA libraries	
		3 Week	2	Enzyme useful in Molecular cloning	
		4 Week	2	Restriction Endonucleases	
5	November -	1 Week	2	DNA ligases, Polynucleotide kinases	
	25	2 Week	2	Klenow enzyme , DNA polymerases-I	
		3 Week	2	Reverse transcriptase, Alkaline phosphatases	
		4 Week	2	Terminal nucleotidyltransferase	

S.	Months &	Week	No. of	Topics to be Covered	Co – Curricular
No.	No. of		Periods		Activity
	working		per week		
	Days				
6		1 Week	3	Gene recombination and gene transfer	Class test and group
	December -27				discussion
		2 Week	3	Bacterial conjugation, transformation	
		3 Week	3	Transduction	
		4 Week	3	Gene transfer techniques:Approaches, Gene silencing	
7		1 Week	3	Mutagenesis,Random and site directed	
	January- 25	2 Week	3	Knock in and Knock out	Model making
					competition(Jigyasa)
		3 Week	3	qPCR	
		4 Week	3	Labelling nucleic acids	
8		1 Week	3	Blotting Techniques: Southern	
	February -23	2 Week	3	Northern , Western Blotting	
		3 Week	3	Zooblot	
		4 Week	3	DNA sequencing	Science day celebration
9		1 Week	3	DNA fingerprinting	
	March- 23	2 Week	3	Application of rDNA technologies in Agriculture, Medicine and	
				Health	
		3 Week	3	Revision	Remedial Classes
1		4 Week	3	Revision	

## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.)

#### **DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY**

Session: 2023-24 (AS PER NEP)

Class: B.Sc. I Year Paper: MEDICAL DIAGNOSTICS (VOCATIONAL)

## **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24(UNDER GRADUATE) (AS PER NEP)**

S. N.	Month & No. of Working Days	Credit	Week	No. of Periods Per Week	Topics to be covered	Co- Curricular Activity/ Internal Exam
1.		03 Credit			Introduction to Medical Diagnostics and its importance: 1. Introduction and Definition of	
		(Unit – I)			Medical Diagnostics. Brief historical perspective of medical diagnostics in context of	
	Danasta	(Unit – II)	1 Week	2	India.	
	December - 25			2	Importance of medical diagnostics and employment opportunities. Elementary knowledge	
	25		2 Week		of Computers.	
			3 Week	2	Diagnostic methods used for analysis of body fluids	
			4 Week	2	1. Analysis of Blood 1.1 Blood composition	
2.		12 Credit	1 Week	2	Technique of collection of blood	CCE1
	January 27	(Unit – II)	2 Week	2	1.2 Preparation of blood smears 1.3 Differential leucocyte count using Lei hman's stain	
	January - 27		3 Week	2	1.4 Platelet count using hemocytometer	
			4 Week	2	'5 Erythrocyte Sedimentation Rate (E.S.R.) 1.6 Packed Cell Volume (P.C.V.)	
3		15 Credit	1 Week	2	Urine Analysis 2.1 Physical characteristics 2.2 Abnormal constituent	
		(Unit - V)			Elementary idea of Diseases and Diagnostic Medical Imaging Techniques: 1. Diabetes	
	February - 22		2 Week	2	Type I and Type II 1.1 Causes, types and symptoms	
			3 Week	2	1.2 Complications, diagnosis and prevention	
			4 Week	2	2. Testing of blood glucose using Glucometer/Kit.	

4				2	3. Hypertension-Primary and Secondary . Tuberculosis, Hepatitis and SARS Covid-19:	
			1 Week		causes, symptoms, diagnosis and its prevention	Assignment
			2 Week	2	4. Tumors: Benign/Malignant 5.1 Detection and Metastasis 5.2 FNAC procedure	
			3 Week	2	Medical Imaging: 6.1 X-ray examination of fractures, 6.2 P.E.T. (Positransmission	
	March - 23				Tomography)	
		Unit (I -III)	4 Week	2	6.3 M.R.I. (Magnetic Resonance Imaging), 6.4 ct CT Scan, 6.5 Ultrasonography	
		Total			(study by photographs)	CCE II
		Credit 30			Session End - Examinations (Practical and Theory)	

**Signature of the Lecturer** 

Signature of the Co-Ordinator Biotechnology

Signature of the HOD

Dept. of Zoology & Biotechnology

**Signature of the Principal** 

### <u>Dept. of Zoology & Biotechnology</u>, Subject– Biotechnology Session- 2023-24

Class -B. Sc. III Year (MAJOR)

Paper I – INDUSTRIAL BIOTECHNOLOGY

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023 – 24 (UNDERGRADUATE)**

S. No.	Months & No. of working Days	Week	No. of Periods per week	Topics to be Covered	Co – Curricular Activity
1		1 Week	2		
	July -26	2 Week	2		
		3 Week	2		Assignments
		4 Week	2		
2		1 Week	2	Discovery, classifications and nomenclature of enzymes;	
	August- 23	2 Week	2	Physico chemical characterization of enzymes; Enzyme kinetics	
		3 Week	2	Enzyme catalysis in solution kinetics and thermodynamic analysis,	
		4 Week	2	effects of organic solvents on enzyme catalysis and structural consequences.	
3		1 Week	2	Kinetics of enzyme inhibition	
Se	September -26	2 Week	2	Immobilization of enzymes: principle and mechanism: Mechanism of enzyme function and reactions in process techniques;	
		3 Week	2	Enzymatic bioconversions e.g. starch and sugar conversion processes; High Fructose Corn Syrup; Interesterified fat;	
		4 Week	2	Hydrolyzed protein etc. and their downstream processing; baking by amylases, deoxygenation and desugaring by glucoses oxidase,	
4	October - 21	1 Week	2	Beer mashing and chill proofing: cheese making by proteases and various other enzyme catalytic actions in food processing.	Group discussion
		2 Week	2	Basic principles in bioprocess technology; Media Formulation; Sterilization;	
		3 Week	2	Thermal death kinetics; Batch and continuous sterilization systems;	
		4 Week	2	Primary and secondary metabolites; Extracellular enzymes;	
5	November - 24	1 Week	2	Biotechnologically important intracellular products; exopolymers	
		2 Week	2	Bioreactor designs: Types of fermentation and fermenters; Concepts of basic modes of fermentation Batch, fed batch and continuous;	
		3 Week	2	Conventional fermentation v/s biotransformation; Solid substrate, surface and submerged fermentation	
		4 Week	2	Fermentation economics; Fermentation media; Fermenter design mechanically agitated	

### **Dept. of Zoology & Biotechnology**, Subject–Biotechnology

Session- 2023-24

Class -B. Sc. III Year

Paper I - INDUSTRIAL BIOTECHNOLOGY

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023 – 24 (UNDERGRADUATE)**

S. No.	Months & No. of working Days	Week	No. of Periods per week	Topics to be Covered	Co – Curricular Activity
6	December -26	1 Week	2	Pneumatic and hydrodynamic fermenters; Large scale animal and plant cell cultivation and air sterilization;	
		2 Week	2	Upstream processing: Media formulation; Sterilization;	Class Test
		3 Week	2	Aeration and agitation in bioprocess; Measurement and control of bioprocess parameters; Scale up and scale down process.	
		4 Week	2		
7		1 Week	2		
	January- 26	2 Week	2	Techniques of enzyme isolation,	
		3 Week	2	purification and enzyme assay,	
		4 Week	2	techniques used for the immobilization of enzymes, Applications of immobilized enzyme in Biotechnology:	
8		1 Week	2	Bioprocess control and monitoring variables such as temperature,	
	February -23	2 Week	2	agitation, pressure, pH, screening.	
		3 Week	2	strain improvement,	Question bank discussion
		4 Week	2	factors affecting downstream processing and	Class Test
9		1 Week	2	Microbial processes production, optimization	
	March- 25	2 Week	2	Revivision	
		3 Week	2	Session End- Examination( Practical and Theory)	
		4 Week	2		

Signature of Lecturer

Signature of HOD

Signature of Co-Ordinator

Signature of Principal

Biotechnology

### **Dept. of Zoology & Biotechnology**, Subject–Biotechnology

**Session-2023-24** 

Class -B. Sc. III Year (MAJOR)

Paper II – AGRICULTURE BIOTECHNOLOGY

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023 – 24 (UNDERGRADUATE)**

S. No.	Months & No. of working	Week	No. of Periods	Topics to be Covered	Co – Curricular Activity
	Days		per week		
1		1 Week	2	Organic farming: Biofertilizers and Biopesticides	
	July -26	2 Week	2	Biological N2 fixation, H2 production,	
		3 Week	2	biofertilizers and biopesticides;	Assignments
		4 Week	2	Solid wastes; sources and management (composting, vermiculture	
				and methane production).	
2		1 Week	2	Single cell protein (Spirulina, yeast, mushroom	
	August- 23	2 Week	2	National and international status of organic farming .	
		3 Week	2	Agencies and institutions related to organic agriculture.	
		4 Week	2	Organic and Indian National Standards for organic products.	
3		1 Week	2	Organic Food Quality and Human Health.	
	September -26	2 Week	2	Agrobacterium plant interaction	
		3 Week	2	Virulence; Ti and Ri plasmids; Opines and their significance;	
		4 Week	2	Cheese making by proteases and various other enzyme catalytic actions in food processing.	
4		1 Week	2	TONA transfer; Disarming the Ti plasmid.	Group discussion
	October - 21	2 Week	2	Genetic Transformation Agrobacterium mediated gene delivery;	
				Screen able and selectable markers; Characterization of transgenics;	
		3 Week	2	Co integrate and binary vectors and their utility; Direct gene transfer	
		4 Week	2	PEG mediated, electroporation, particle bombardment and	
				alternative methods;	
5	November - 24	1 Week	2	Chloroplast transformation; Marker free methodologies; Gene	
				targeting, Genetically modified crops.;	
		2 Week	2	Conventional fermentation v/s biotransformation; Solid substrate, surface and	
				submerged fermentation; Fermentation economics;	
		3 Week	2	Fermentation media; Fermenter design - mechanically agitated;	
		4 Week	2	Techniques and Applications: enzyme detection, t	

## **Dept. of Zoology & Biotechnology**, Subject–Biotechnology

**Session-2023-24** 

Class -B. Sc. III Year

Paper II- AGRICULTURE BIOTECHNOLOGY

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023 – 24 (UNDERGRADUATE)**

S.	Months &	Week	No. of	Topics to be Covered	Co – Curricular
No.	No. of working		Periods		Activity
	Days		per week		
6		1 Week	2	Gene Editing- Gene transfer technique-physical chemical,	
	December -26	2 Week	2	Biological method	Class Test
		3 Week	2	mutagenesis-random & site directed,	
		4 Week	2	RNA structure of Ribozymes, Regulation of gene editing,	
7		1 Week	2	Gene editing tools- CRISPR-Cass & TALEN,	
	January- 26	2 Week	2	Identification and classification of organisms using	
				molecular markers- I6S rRNA typing/sequencing,	
		3 Week	2	track emerging diseases and design new drugs;	
		4 Week	2	SNPs;	
8		1 Week	2	determining gene location in genome sequence	
	February -23	2 Week	2	GROUP DISCUSSION	
		3 Week	2	Applications and techniques: clinical and biomedical	Question bank
				applications of proteomics	discussion
		4 Week	2	use of genomes to understand evolution of eukaryotes	Class Test
9		1 Week	2	Gen isolation and gene silencing,	
	March- 25	2 Week	2	QUIZ	
		3 Week	2	Session End- Examination( Practical and Theory)	
		4 Week	2		

Signature of Lecturer

Signature of HOD

Signature of Co-Ordinator

Signature of Principal

Biotechnology

		Govt	M.H. Home S	cience And Science College, JABALPUR (M.P.)	
				Department of Zoology	
				Session 2023-2024	
		Cla	ass : B.Sc Ist Yr	Paper: II Cell Bio, Reproductive Bio & Development	
		<u>T</u>	EACHING PLAN FO	R THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)	
			<u> </u>		
S.No	Month	Week	No. Of Periods per Week	Topics to be covered	Credit lecture and Activity
1	JULY	1WEEK	2	Difference b/w prokarotes & eukaryotes	
		2WEEK	2	Structure & function Of plasma membrane	
		3WEEK	2	Structure & function Of ER & Mitichondria	
		4WEEK	2	Structure & function Of Golgi body, Ribosome, Lysosomes	
2	AUGUST	1WEEK	2	structure & function Of Nucleus	
		2WEEK	2	structure & function Of Chromosome	
		3WEEK	2	cell cycle : Mitosis	
		4WEEK	2	cell cycle : Meiosis	13 credit (unit- I)
3	SEPTEMBER	1week	2	Reproductive system of Rabbit	
		2week	2	T.S of testies & Ovary	
		3week	2	Gametogenesis	
		4week	2	Spermetogenesis & Oogenesis	13 credit (unit-2)
4	OCTOBER	1week	2	Types of Eggs	
		2week	2	Stem Cells & Its Types	CCE EXAM
		3week	2	Gene bank & Sperm Bank	
		4week	2	superovulation	
5	NOVEMBER	1WEEK	2	Cryopreservation	
		2WEEK	2	Invitrofertilization & ET	
		3WEEK	2	Zygote Intra Transfer & ICSI	12 Credit (unit-3)
		4WEEK	2	Placentation in Mammals	
6	DECEMBER	1WEEK	2	Fertilization	
		2WEEK	2	Embryonic development of Frog	11 Credit(unit-4)
		3WEEK	2	Formation of Three germinal Layer	

		4WEEK	2	Fate Map Formation	CCE EXAM
7	JANUARY	1WEEK	2	Metamorphosis of Tadepole Larva	Internship
		2WEEK	2	Introduction Of Parthenogenesis	
		3WEEK	2	types Of Parthenogenesis	
		4WEEK	2	Structure of Hen Egg	
8	FEBRUARY	1WEEK	2	Embryonic development Of Chick	
		2WEEK	2	Formation Of Primitive Sreak	11 credit (unit-5)
		3WEEK	2	Fate Map Of chick	
		4WEEK	2	Extra Embryonic Membrane	
9	MARCH	1WEEK	2	Revision	
		2WEEK	2	Revision	
		3WEEK	2	Revision	
		4WEEK	2	Practical exam & Main exam(Session End)	
		Signature of			Signature of
		Lecrurer			HOD

## GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (M.P.) 2023-24 DEPARTMENT OF ZOOLOGY AND BIOTECHNOLOGY

Class: B.Sc II<sup>nd</sup> Year Session: 2023-24 Paper: - II (Physiology and Biochemistry )

### TEACHING PLAN FOR THE ACADEMIC YEAR

SR.NO	Month & no.	Week	No. of	Topics to be covered	Co-Curricular Activity
	of working		periods		
	days.		per week		
	July	1	2	Contribution of Charak and Sushrut	
		2	2	Bio molecules: micro and macro	
		3	2	Water and buffer system	
		4	2	Enzymes: - Nomenclature, classification and functions, mechanism, co- enzymes	
	August	1	2	Vitamins and minerals	
		2	2	Deficiencies and disorders of vitamins	
		3	2	Metabolism, physiology and regulation- Protein	
		4	2	Carbohydrates: - classification and biological importance	
	September	1	2	Metabolism- Citric acid cycle and ETS	
		2	2	Lipid: - classification and importance	
		3	2	Metabolism- beta oxidation of fatty acid	
		4	2	Physiology of digestion	
	October	1	2	Homeostasis and BMR (thermoregulation)	
		2	2	CCE-1	
		3	2	Respiration: - mechanism and physiology	
		4	2	Disorders of respiration	

November	1	2	Excretion: - Physiology
	2	2	Excretory products and disorders & osmoregulation
	3	2	Immunity
	4	2	CCE 2
December	1	2	Nerves: - structure and types
	2	2	Nerve impulse conduction and disorders
	3	2	Muscle structure and types and physiology of muscle contraction
	4	2	Muscular disorder- Fatigue
January	1	2	CCE 3
	2	2	Hormones: - classification & mechanism
	3	2	Endocrine system: - pituitary gland
	4	2	Thyroid and parathyroid gland
February	1	2	Adrenal and thymus gland
	2	2	Pineal gland and pancreas
	3	2	Reproductive physiology
	4	2	Revision
March	1	2	Revision
	2	2	Revision
	3	2	Final Exam

**Signature of Lecturer** 

**Signature of HOD** 

**Signature of Principal** 

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

## **DEPARTMENT OF MATHEMATICS AND COMPUTER**

# TEACHING PLAN FOR THE ACADEMIC YEAR 2022-23



PRIYANKA VISHWAKARMA Faculty (Computer Application)

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

## **DEPARTMENT OF MATHEMATICS AND COMPUTER**

Session-2<del>022-2</del>3 २७२३ - २3

Class- B.Sc. I yr.(CA)
(Major+Minor)

Paper-II (Data processing system)

Faculty-Priyanka
Vishwakarma
(Computer Application)

## Teaching Plan for the Academic Year 2023-24

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark	
1	August 2023- W.D					
	Month Activity					
		r23- 8	8 2	Document textsSelecting TextsCopying and Moving Texts		
	September23-			Applying Fonts and Font Styles in Word	COMPLETED	
2	W.D24	•		Aligning and Formatting		
1				Replacing and checking Text		
	N	onth Activity	v	Teachers Day celebration, CCE-1		
	- ''	Widitin Activity	Ultil Activity	Revising Column Structure		
	October23-			Constructing High-Quality	COMPLETED	
3	W.D6	7 2 Counting and Povising Tables	Creating and Revising Tables	COMPLETED		
١	W.D6	VV.D0		Use of Mail Merge in Microsoft Word		

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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
_	November23-			Introduction of window	
4	W.D			my computer, Recycle bin, Desktop ,lcon Desktop	COMPLETED
	-			Screen description & working styles, Dialog Boxes	
	Mo	onth Activity			
				database tables , relational database , records , fields	
_	December23-			MSAccess requirements	
5	W.D25	10	2	adding & deleting fields	COMPLETED
	10.5.25			resizing fields, freezing columns	
				primary key field indexing fields	
	Mo	nth Activity		CCE-2 AND CCE-3	
				MSAccess Form	
	Janurary2024-		2	Editing data, Finding, sorting	COMPLETED
6	W.D25	W.D25 10 2		Creating reports, Previewing reports	
				Saving reports, Relational databases	
				creation, viewing, deleting, Expressions,	
	Мо	nth Activity			
				Finding and Replacing Texts	
7	Feburary2024-	8		Grammar using the Thesaurus command,	
	W.D23		-	Print Preview, Changing Page rientation	COMPLETED
				Create PivotTable	
	Moi	nth Activity		CCE-4	
			-	Create PivotTable	
8	March2024-	7		Building Presentations	
	W.D23	-	_	Adding Objects, Applyin ransitions, Animation Effects and Linking	COMPLETED
	Mor	nth Activity		Sessional	

Faculty

**Course Co-ordinator** 

H.O.D.

### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

#### Session-2022-23

Class- B.Sc. II yr.(CA) (Major+Minor) Paper-II (Introduction to ASP. Net )

<u>Faculty</u>-Priyanka Vishwakarma (Computer Application)

## Teaching Plan for the Academic Year 2022-23

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
1					
	М	onth Activity			
2	September23- W.D24	10	2	Overview of OOPs Creating and using Class Library Defined Classes Exceptio handling Understanding Delegates in c#	COMPLETED
				Teachers Day celebration, CCE-1	
	N	onth Activity		Windows Forms and Controls	
3	October23- W.D6	8	2	Windows Forms Model	COMPLETED
		onth Activity	,	GRABA CELEBERATION	

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S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D23	8	2	Introduction to .NET Framework The Basics and Console Applications in C# Introduction to C#.NET	COMPLETED
	М	onth Activity			
5	December23- W.D25	10	2	Introduction to ASP.NET Application SP.NET Life Cycle Applications Web servers client controls Web form controls	COMPLETED
	M	onth Activity		CCE-2 AND CCE-3	
6	Janurary2024- W.D25		2	programming in ASP.NET Adding controls to a web States of ASP.NET Creating ultiform web project	COMPLETED
	M	onth Activity			
7	Feburary2024- W.D23	. 8	2	Display data on data bound Controls and Data Grid Create Connection using ADO.NET Objec Mode Connecte and Discomected Database Data Binding concept with web	COMPLETED
	N	lonth Activity		CCE-4	
8	March2024- W.D23	8	2	Database ccessing on web applications Display data on web form sing Data bound controls Windows form and controls	COMPLETED
Month Activity				Sessional	/_

Faculty

**Course Co-ordinator** 



#### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

#### **Session-2022-23**

Class- B.Sc. II yr.(CS)
(Major+Minor)

Paper-II (Object Oriented Programming with Java)

<u>Faculty</u>-Priyanka Vishwakarma (Computer Application)

#### **Teaching Plan for the Academic Year 2022-23**

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
1	August 2023- W.D25				
	Mo	onth Activity			
2	September23- W.D24	10	2	Java Basics – Constants , Variables, Data Types Operators in Java Arithmetic Expressions – Evaluation of Expression, Type Conversions in Expressions Precedence of Arithmetic Operators Decision Making Statements in Java	COMPLETED
	Mo	nth Activity		Teachers Day celebration, CCE-1	
3	October23- W.D23	8	2	Loops – While Statement, Do Statement, For Statement, Jump in Loops, Labeled Loops.  Class - Defining a Class, Adding Variables  Adding Methods in class, creating Objects, Accessing Class Members  Constructors – definition and types	COMPLETED
	Mo	onth Activity		GRABA CELEBERATION	

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S.N.	Month & No. of working Days	AvailablePe riods	No.of Peroids per Week		Remark					
	November23-			Methods Overloading, Nesting of Methods. Inheritance						
4	W.D22	7	2	Final Classes, Finalize Methods, Abstract Methods and	COMPLETED					
	200			Classes						
	IVIC	nth Activity		Diwali Fest, CCE-2						
				Wrapper Classes. Defining Interfaces, Extending						
				Interfaces, Implementing Interfaces.	-					
				Java API Packages						
5	December23-			Creating Threads, Stopping and Blocking a Threads, Life						
3	W.D25	10	2	Cycle of a Thread	COMPLETED					
				Using Threads Methods, Threads Exceptions, Threads						
				Priority.						
				Types of Errors – Exceptions, Syntax of Exception						
				Handling Code						
	Mo	nth Activity		CCE-3						
	Janurary2024- W.D25	). 							Preparing to Write Applets	
				Applets						
6		10	2	More About HTML Tags, Getting Input from user	COMPLETED					
		W.D23	W.D25	W.D23			The Graphics Class – Lines and Rectangles, Circles and	CONFLETED		
				Ellipses, Drawing Arcs, Drawing Polygons, Line graphs						
				Concept of Stream						
7	Feburary2024-	8	2	Stream Classes, Byte Stream Classes						
•	W.D23		_	Character Stream Classes, Using Streams	COMPLETED					
				Other Useful I/O Classes	1					
	Mo	nth Activity		CCE-4						
				Using the File Class, Input / Output Exceptions						
8	March2024-	7	2	Handing Primitive Data Types						
0	W.D23	<b>'</b>	,   2		COMPLETED					
				Interactive Input and Output other Stream Classes.						
	Facult	SH- tv		Course Co-ordinator	H.O.D.					

### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

#### Session-2022-23

### Teaching Plan for the Academic Year 2022-23

Class-B.Sc. II year CA

Paper- II (Introduction to ASP .NET)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Practicals	Remark
1	August 2022- W.D25	4	4		COMPLETED
	Month Activity				
2	September22- W.D23		4	create a simple console application in C#  Add to Integers and print hello world  Program checks if a given integer is Odd or Even  Checks Whether the Entered Year is a Leap Year or Not	COMPLETED
	Month Act		,	Teachers Day celebration, CCE-1	
3	October22- W.D23	4	4	Program Finds whether the Number is Divisible by 2 Program Finds and displays the Multiplication Table Program Performs all Basic Arithmetic Operations program that generates the Fibonacci series	COMPLETED
	M	onth Activity	i		



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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November22- W.D23	4	3	Program to generate the factorial of given number To display all the prime numbers between 1 to 100 A number and display the number with its reverse	COMPLETED
	М	onth Activity			
5	December22- W.D25	4	4	Program to generate the marksheet of the student Program to calculate simple interest Program to get the length of the array Program to find smallest element in a matrix	COMPLETED
	M	onth Activity	1	CCE-2 AND CCE-3	
6	Janurary2023- W.D26		4	Program to find largest element in a matrix Program to perform matrix addition Program to calculate the length of the string	
	N	lonth Activity	1		
7	Feburary23- W.D	4	4	Program to convert upper case to lower case Program to perform insertion sort Program to perform a selection sort	
	N	onth Activity	/		
8	March23- W.D	4	4	Program to perform a selection sort Program to illustrate single inheritance Online web form and registration form	
	N	onth Activity	/		

**Course Co-ordinator** 

Faculty Payor

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) <u>DEPARTMENT OF MATHEMATICS AND COMPUTER</u>

#### Session-2022-23

#### Teaching Plan for the Academic Year 2022-23

Class-B.Sc. II year CS

Paper- II (Object oriented programing in java)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Practicals	Remark
1	August 2022- W.D25	4	4		COMPLETED
	N	onth Activity			
2	September22- W.D23	4	4	Java program to perform basic Calculator operations program to calculate a Factorial of a number program to calculate Fibonacci Series up to n numbers	COMPLETED
	Month Activity			Teachers Day celebration, CCE-1	
3	October22- W.D23	4	3	find out whether the given String is Palindrome or not calculate Permutation and Combination of 2 numbers find out Alphabet and Diamond Pattern	COMPLETED
	N	onth Activity	ĺ		



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S.N. Month & No. of working Days  Available Periods per Week  November 22- W.D  Month Activity  Periods per Week  reverse the letters present in the given String check whether the given array is Mirror Inverse or not program to implement a Binary Search Algorithm  Month Activity  Program to remove elements from an ArrayList Fibonacci Series without using recursion	mark
check whether the given array is Mirror inverse of not program to implement a Binary Search Algorithm  Month Activity  program to remove elements from an ArrayList	
Month Activity  program to remove elements from an ArrayList	
program to remove elements from an ArrayList  Fibonacci Series without using recursion	
W.D25  4  4  prime number program  check whether number is palindrome or not	
Month Activity CCE-2 AND CCE-3	
factorial Program using loop factorial program in java using recursion program to print Right Triangle Star Pattern Reverse a number using while loop	
Month Activity	
7 Feburary23- W.D 4 4 To print largest number to sort the elements of an array in ascending order to print the following pattern on the console	
Month Activity	
8 March23- W.D  Wite a program to Linear Search Program to find Reverse of the string To find the duplicate characters in a string	
Month Activity	

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**Course Co-ordinator** 

H.O.D.

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

#### **Session-2022-23**

#### Teaching Plan for the Academic Year 2022-23

<u>Class</u>-B.Sc. I year CAMajor)

<u>Paper-</u> II (Data Processing Software)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

AvailableP No.of **Practicals** Remark Month & No. eriods Peroids S.N. of working per Week Days August 2022-1 4 COMPLETED 4 W.D.-25 **Month Activity** chart into the document September22writing mathematical equations 2 4 W.D.-23 To create a document COMPLETED set the margins,, orientation, size, column **Month Activity** Teachers Day celebration, CCE-1 water mark, page color and page borders using mail merge by connecting data base October22-3 4 3 COMPLETED W.D.-23 **Month Activity** 

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S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
	November22-			To create a document ,insert header and footer	
4	W.D			Insert a table, picture, clip art	
	W.D.			page title, page numbers	
	M	onth Activity			
				To Print an invitation letter using mail merge	
_	December22-			To design a table, form and report in Access	
5	W.D25	4	4	To design Queries and macro in Access.	
				To get external data from elsewhere and move to Access.	
	м	onth Activity		CCE-2 AND CCE-3	
	Janurary2023- W.D26	4		Access Data base, generate report and label	
			4	To encrypt Data base with pass word in Access	
6				Creating, editing, saving, printing in ms excel	
				securing & protecting operations of an excel spreadsheets.	
	M	onth Activity			
				To Prepare different types of charts in Excel	
7	Feburary23-	4	4	student's data for identity card along with photo, sign etc.	
′	W.D	4	-	To create bar chart & pie chart in Excel	
				To prepare an attendance sheet	
	N	Ionth Activity	1		
	March23-			To create Pivot Table	
8	100000	4	4	To create power point slide	
	W.D			A professional slide for presentation in Power point	
	N	onth Activity			



**Course Co-ordinator** 



### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

# TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24



PRIYANKA VISHWAKARMA Faculty (Computer Application)

#### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

#### Session-2023-24

Class- B.Sc. I yr.(CA)
(Major+Minor)

Paper-II (Data processing system)

<u>Faculty</u>-Priyanka Vishwakarma (Computer Application)

#### Teaching Plan for the Academic Year 2023-24

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
				Introduction of window	
				my computer, Recycle bin, Desktop ,Icon Desktop	
1	August 2023-	9	2	Screen description & working styles , Dialog Boxes	COMPLETED
	W.D25			Working with Files & Folders; Shortcuts	COMPLETED
				Windows Settings, Start button, Hardwares & Softwares.	
	M	onth Activity			
				Document textsSelecting TextsCopying and Moving Texts	
2	September23- W.D24	, A	2	Applying Fonts and Font Styles in Word	COMPLETED
				Aligning and Formatting	
				Replacing and checking Text	
	М	onth Activity	1	Teachers Day celebration, CCE-1	
				Revising Column Structure	
				Constructing High-Quality	
3	October23- W.D6	7	2	Creating and Revising Tables	COMPLETED
				Use of Mail Merge in Microsoft Word	

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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				COMPLETED
	М	onth Activity			
5	December23- W.D25	10	2	database tables ,relational database , records , fields MSAccess requirements adding & deleting fields resizing fields , freezing columns primary key field indexing fields	
	М	onth Activity		CCE-2 AND CCE-3	
6	Janurary2024- W.D26	10	2	MSAccess Form Editing data , Finding , sorting Creating reports, Previewing reports Saving reports, Relational databases creation, viewing, deleting, Expressions ,	
	N	onth Activity			
7	Feburary2024 W.D23	8	2	Finding and Replacing Texts Grammar using the Thesaurus command, Print Preview, Changing Page rientation Create PivotTable	
	N	onth Activity	,	CCE-4	
8	March2024- W.D24	8	2	Create PivotTable Building Presentations Adding Objects, Applyin ransitions, Animation Effects and Linking	
	N	Nonth Activity	,	Sessional	





#### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

Session-2023-24

Class- B.Sc. II yr.(CA)
(Major+Minor)

Paper-II (Introduction to ASP. Net)

Faculty-Priyanka
Vishwakarma
(Computer Application)

#### **Teaching Plan for the Academic Year 2023-24**

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
				Introduction to .NET Framework	
	August 2023-	8	2	The Basics and Console Applications in C#	COMPLETED
1	W.D25	•	2	Introduction to C#.NET	
				type conversion	
	М	onth Activity			
	September23-	10	2	Overview of OOPs	COMPLETED
				Creating and using Class Library	
2				Defined Classes	
_	W.D24			Exceptio handling	
				Understanding Delegates in c#	
	М	onth Activity		Teachers Day celebration, CCE-1	
		T		Windows Forms and Controls	_
	October23-		_	Windows Forms Model	COMPLETED
3	W.D6	8	2		-
		onth Activity		GRABA CELEBERATION	



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S.N.	1110111111 0 110.	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				GOMPLETED
	M	onth Activity			
5	December23- W.D25	10	2	Introduction to ASP.NET Application SP.NET Life Cycle Applications Web servers client controls	
	+			Web form controls	
6	Janurary2024- W.D26	onth Activity 7	2	CCE-2 AND CCE-3 programming in ASP.NET Adding controls to a web States of ASP.NET Creating ultiform web project	-
	<b>M</b> /	onth Activity			
7	Feburary2024- W.D23	8	2	Display data on data bound Controls and Data Grid Create Connection using ADO.NET Objec Mode Connecte and Discomected Database Data Binding concept with web	-
	M	onth Activity		CCE-4	
8	March2024- W.D24	4	2	Database ccessing on web applications Display data on web form sing Data bound controls Windows form and controls	
	M	onth Activity		Sessional	

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Course Co-ordinator

H.O.D.

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) <u>DEPARTMENT OF MATHEMATICS AND COMPUTER</u>

#### Session-2023-24

### Teaching Plan for the Academic Year 2023-24

<u>Class</u>-B.Sc. III year CA(Minor) <u>Paper-</u> II (Internet And Its Application )

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
1	August 2023- W.D25	8	2	Evalution of internet world wide web Application of Internet Connecting to Internet What is ISP	COMPLETED
	1	Month Activit	y		
2	September23 W.D23	10	2	Basic of computer Network OSI, TCP/IP Transmission Media Network Device	COMPLETED
		Month Activi	ty	Teachers Day celebration, CCE-1	
3	October23 W.D06	2	2	Introduction Objectives (www) Search engine Basic of E- Mail	COMPLETED
		Month Activ	ity		

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S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				
	М	onth Activity			_
				HTML5 Syntax	-
	December23-			Hyperlinks , directory	-
5	W.D25	8	2	HTML Tags	-
	W.D23			Semantic element	-
				Browser variations	
	М	onth Activity		CCE-2 AND CCE-3	-
				Use AFS	-
	Janurary2024-	1_	8 2	Secure Shell	-
6	W.D26	8		Use high level HTML	-
	W.D20	W.D26		PHP for server side scripting	-
				Syntax	
	М	onth Activity			
				Embedded SQL queries	-
7	Feburary2024-	6	2	Use 3 - tier applications	4
,	W.D	"	2	PHP versus MySQL	4
				HTML wrappers for database content	
	Month Activity				-
	March2024-			Brief introduction to HTTP	4
8	W.D	8	2	UNIX terminal window command	-
	W.D			HTTP message headers	
	M	onth Activity			



**Course Co-ordinator** 

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

#### Session-2023-24

### Teaching Plan for the Academic Year 2023-24

<u>Class</u>-B.Sc. III year CAMajor) <u>Paper-</u> II (Operating System)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
1	August 2023- W.D25	8	2	Introduction: Evolution of operating systems, Different views of the operating system The Process concept, systems programmer's view of processes operating system services for process management Scheduling algorithms. Performance evaluation	COMPLETED
	N	Nonth Activity	У		
2	September23 W.D23	10	2	Memory Management paging, swapping, virtual memory, page replacement alg Inter-process Communication and Synchronization Deadlocks: Deadlock Prevention, deadlock avoidance	COMPLETED
		 Month Activit	· · · · · · · · · · · · · · · · · · ·	Teachers Day celebration, CCE-1	
3	October23- W.D06		2	critical region conditional critical region monitors, messages.	COMPLETED
		Month Activi	ty		

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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				
	M	onth Activity			
5	December23- W.D25	8	2	File Systems Input/output: Principles of I/O Hardwar Principles of I/O Software User space I/O Software.	
				Disk hardware, scheduling algorithms	
	M	onth Activity		CCE-2 AND CCE-3	
6	Janurary2024- W.D26	8	2	Error handling, track-at-a-time caching, RAM Disks Clock Processes and Processors in Distributed Systems Distributed File Systems Architecture and working of Android	
	Me	onth Activity			
7	Feburary2024- W.D	6	2	IOS and windows phone 8 operating system Comparison of Android, IOS and window phone 8 What is Android & advantages and features Android development Tools	
	Mo	onth Activity			
8	March2024- W.D	8	2	User Interface Design User interface Architecture Connecting with Database.	
	146	onth Activity		Commercial Management	

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## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) <u>DEPARTMENT OF MATHEMATICS AND COMPUTER</u>

#### Session-2023-24

### Teaching Plan for the Academic Year 2023-24

Class-B.Sc. I year CA

<u>Paper-</u> II (Data Processing Software)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Practicals	Remark
1	August 2023- W.D25	4	4	To create a document ,insert header and footer  page title, page numbers  Insert a table, picture, clip art	COMPLETED
	N	onth Activity	1		
2	September23- W.D23		4	chart into the document writing mathematical equations To create a document set the margins,, orientation, size, column	COMPLETED
	N	Nonth Activit	V	Teachers Day celebration, CCE-1	
3	October23- W.D06	4	2	water mark, page color and page borders using mail merge by connecting data base	COMPLETED
	-	 Month Activit	У		



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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				
	M	onth Activity			
5	December23- W.D25	4	4`	To Print an invitation letter using mail merge To design a table, form and report in Access To design Queries and macro in Access. To get external data from elsewhere and move to Access.	
	Mo	onth Activity		CCE-2 AND CCE-3	
6	Janurary2024- W.D26	4	3	Access Data base, generate report and label To encrypt Data base with pass word in Access Creating, editing, saving, printing in ms excel securing & protecting operations of an excel spreadsheets.	
	Mo	onth Activity			
7	Feburary2024- W.D	4	3	To Prepare different types of charts in Excel student's data for identity card along with photo,sign etc.  To create bar chart & pie chart in Excel  To prepare an attendance sheet	
	Mo	nth Activity		- FF an anomanie sheet	
8	March2024- W.D	4	4	To create Pivot Table To create power point slide A professional slide for presentation in Power point	
	Mo	nth Activity		presentation in 1 ower point	

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**Course Co-ordinator** 



## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

#### Session-2023-24

#### **Teaching Plan for the Academic Year 2023-24**

Class-B.Sc.II year CA

Paper- II (Introduction to ASP .NET)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No.	AvailableP eriods	No.of Peroids per Week	Practicals	Remark	
				create a simple console application in C#		
	August 2023-			Add to Integers and print hello world		
1	W.D25	4	4	Program checks if a given integer is Odd or Even	COMPLETED	
	W.D25	W.D25			Checks Whether the Entered Year is a Leap Year or Not	
	N	lonth Activity				
		Δ		Program Finds whether the Number is Divisible by 2		
2	September23-		4 4	4	Program Finds and displays the Multiplication Table	COMPLETED
-	W.D23			<b>"</b>   <b>"</b>	Program Performs all Basic Arithmetic Operations	
				program that generates the Fibonacci series		
	N	Nonth Activity	<b>Y</b>	Teachers Day celebration, CCE-1		
				Program to generate the factorial of given number		
3	October23-	4	3	To display all the prime numbers between 1 to 100		
,	W.D06	_		A number and display the number with its reverse	COMPLETED	
Month Act			y			

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					Remark
S.N.	Month & No of working Days	Prings	Peroids per Week		
4	November23- W.D				
	N	lonth Activity		Program to generate the marksheet of the student	
5	December23- W.D25	4	4	Program to generate the marksheet end of the Program to calculate simple interest Program to get the length of the array Program to find smallest element in a matrix	
	Month Activity			CCE-2 AND CCE-3	_
6	Janurary2024- W.D26	4	3	Program to find largest element in a matrix Program to perform matrix addition Program to calculate the length of the string	
	Mo	nth Activity		to lower case	
7	Feburary2024- W.D	4	_	Program to convert upper case to lower case Program to perform insertion sort Program to perform a selection sort	
	Moi	nth Activity			
8	March2024- W.D	4	4 F	Program to perform a selection sort Program to illustrate single inheritance Online web form and registration form	
	Mon	th Activity			



**Course Co-ordinator** 

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## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

#### Session-2023-24

#### Teaching Plan for the Academic Year 2023-24

<u>Class</u>-B.Sc. III year CA(Major) <u>Paper</u> II (Operating System)

Faculty- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Practicals	Remark
1	August 2023- W.D25	4	2	directories command (ls , pwd,) directories command (mkdir, rmdir) command (cd , cd)	COMPLETED
				command (cd.: , cd)	
	September23-	lonth Activity	4	directories command (cat , clear) directories command (cp, mv, rm)	COMPLETED
2	W.D23	4	4	directories command (uname, locate)	COMPLETED
	M	onth Activity		Teachers Day celebration, CCE-1	
3	October23- W.D06	4	2	command (touch option)	COMPLETED
	N	onth Activity			

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S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D				
	M	onth Activity			
5	December23- W.D25	4	4	command(grep all option) command(wc all option) command( more , less, cal, shot) command(echo, man, tail)	
	Mo	onth Activity		command(head, tac,su,id)  CCE-2 AND CCE-3	
6	Janurary2024- W.D26	4		command(useradd, passwd, cut, comm, ) command(ip, mail,exit) command(history) command(chmod ,)	
	Mo	onth Activity		groupadd, groupdel, cown, chgrp	
7	Feburary2024- W.D	4	4	write a shell script print masseges display its factorial in shell script name pass on command line arguments passed on command line	
	Mo	onth Activity		B	
8	March2024- W.D	4	4	vi editor (create file, edit,save, quit) vi editor (cut, yank, undo) mail, ping, host	



Course Co-ordinator

H.O.D.

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## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) <u>DEPARTMENT OF MATHEMATICS AND COMPUTER</u>

#### Session-2023-24

## Teaching Plan for the Academic Year 2023-24

<u>Class</u>-B.Sc. III year CA(Minor) <u>Paper</u> II (Internet & its application)

<u>Faculty</u>- Mrs. Priyanka Vishwakarma

S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Practicals	Remark	
1	August 2023-	2		Study of Twisted cable, coaxial cable, optical fiber		
1	W.D25		2		COMPLETED	
				NIC, repeater, hub		
	+			brigde, switch,	a .	
	M	onth Activity				
2	September23-	eptember23- W.D23	ember23-	2	router , gateway	
•	W.D23			LAN topology	COMPLETED	
	M	onth Activity		Teachers Day celebration, CCE-1		
				Internet connectivity		
,	October23-		1 , [	Hands on working with internet		
3	W.D06	2	2	web browsing software and Email	COMPLETED	
	Month Activity					

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S.N.	Month & No. of working Days	AvailableP eriods	No.of Peroids per Week	Topics to be covered	Remark	
4	November23- W.D					
	M	onth Activity				
				security feature while working on internet		
1	December23-			create HTML document		
5	W.D25	2	2	Bold, Italic, colour	COMPLETED	
	W.D25				Headings, Title, font	
	N	│ Ionth Activity		CCE-2 AND CCE-3		
				Paragragh in HTML		
		1 2		Horigontal line, vartical line		
6	Janurary2024-		2	Ordered and unordered list		
1	W.D26			Inserting Image		
				Internal & External Linking		
	N	onth Activity	,			
7	Feburary2024 W.D	2	2	Learn to use UNIX window		
	Month Activity					
8	March2024- W.D	2	2	write a program to print "hello php" using variable		
	N	onth Activit	y			

Faculty

**Course Co-ordinator** 

H.O.D.

## DEPARTMENT OF MATHEMATICS AND COMPUTER

# TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24



AARTI CHOUKSEY
Faculty (Computer Application)

#### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

#### Session-2023-24

Class- B.Sc. I yr.(CA) (Major)

Paper-I (C Programming Language )

<u>Faculty</u>-Aarti Chouksey (Computer Application)

#### **Teaching Plan for the Academic Year 2023-24**

S.N.	Month & No.	AvailableP	No.of	Topics to be covered	Remark
	of working	eriods	Peroids per	-	
	Days		Week		
				Programming Fundamental : Program Concept,	
				C language: Introduction history of C,	
١.	August 2023-	9	2	Algorithms, Flow Charts : Programming Techniques	COMPLETED
1	W.D25	9	2	Merits & Demerits of c , Programming Logics-	COMPLETED
				Simple Branching, Cohesion & Coupling Programming	
				Testing & Debugging their Tools	
	Мо	nth Activity			
				Variables -Declaring. Defining and Initializing	
1				Variables. Scope of Variables, C tokens, identifier,	
2	September23- W.D24	8	2	Constants. Keywords. Data Types Operators	COMPLETED
				Formatted and Console I/O ,Using Basic Header Files	
				Simple Expressions in C,Conditional Statements	
	Mo	nth Activity		Teachers Day celebration, CCE-1	
				and library functions, builtin function,	
١.	October23-	_	,		COMPLETED
3	W.D23	7	2		COMPLETED
					Momber



S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November23-	5	2	reference, Categories of User defined functions,	COMPLETE
7	W.D18		_	Return values and their types, Calling a function,  Void function	
	M	nth Activity		Diwali Fest, CCE-2	
		Activity		recursion, function arguments, Return values and	
				nesting of function, Recursion, Calling of functions,	
5	December23-	10	2	Scope and life of variable - local and global variable, Storage	
W.D2	W.D25			Storage class - auto, extern static, register.	
	Me	onth Activity		CCE-3	
	Janurary2024- W.D26	10		Arrays : what is array, declaring, initializing,	
			2	accessing individual elements in an array,	
6				manipulating array elements using loops	
				2D and 3D arrarys, String: declaration,	
				string functions - strcat, strcpy, strcmp, strlen, strstr.	
	M	onth Activity	!		
				Pointers: operations on pointers, Declaring	
	Feburary2024	.		and initializing pointers, Accessing a variable through its p	
7	W.D	8	2	its pointer,Pointer to structure	
				Structures : Structure definition declaring and	
				initiazlizing,accessing,array of structure,Union	
	M	onth Activity	/	CCE-4	
				File handling, File structure, File handling ,File types, Strea	
8	March2024-	4	2	Streams, File system basics open, Close, update	
	W.D			Using feof() Working with string fputs() and	
	Banch Anticity			fgets(),Standard streams in C,Command line arguments.	
	M	onth Activit	у	Sessional	(

#### DEPARTMENT OF MATHEMATICS AND COMPUTER

#### Session-2023-24

Class- B.Sc. II yr.(CA) (Major)

Paper-I

(Data Base management System)

<u>Faculty</u>-Aarti Chouksey (Computer Application)

#### Teaching Plan for the Academic Year 2023-24

S.N.	Month & No.	AvailableP	No.of	Topics to be covered	Remark
	of working	eriods	Peroids		
	Days		per Week		
				Introduction DBMS Advantages ,Architecture,	
				Data Model, View/Schema, data dictionary, Data Model,	
	August 2023-			(E-R diagram, shapes, entity, attributes, its types	COMPLETED
1	W.D25	9	2	Mapping Constraints, Reducing ER diagram	COMPLETED
				Generalization, Specialization, Aggregation	
	Mo	nth Activity			
				Relational, Hierarchical and Network Model advantages and	
				disadvantages, storage organization for Relations. Rational	
	September23-			Model:	COMPLETED
2	W.D24	8	2	Normalization : First, Second, Third & BCNF Normal	COMPLETED
				Forms, Key, primary key, Candidate key, Integrity rules :	
				rules : Entity integrity, Referential integrity rule.	
	Mo	nth Activity			
				Relational algebra : select, project, cross product, different	
				types of joins	
3	October23-	7	2	theta join, equi join, natural join, outer join, set operations	<b>COMPLETED</b>
	W.D23			union, set difference, Cartesian product, selection,	
				intersection, relational query language.	601
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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per	Introduction of SOL Types of	Remark
4	November23- W.D18	5	2	Relational query language :- Introduction of SQL, Types of language  Data Manipulation in DBMS, Data types,	COMPLETE
	Mo	nth Activity			
				Introduction of DDL,DML,DCL,DQL,TCL	
				Mathematical function, operaters, its types, range searching	
5	December23-	10	2	pattern mathching, query,nested query, date function	COMPLETED
	W.D25			set operations, joins , its types	
	Mo	nth Activity			
	1	,		key, types of keys,example	
	Janurary2024- W.D26	- 10	2	Sub queries and correlated queries, SQL Functions.	
6				Constraints in SQL.	
				Introduction to PL/SQL :- PL/SQL structure	
				Cursors, declareration.	
	Mo	nth Activity	•		
				Stored Procedures and functions.	
	5 - h	2024		Triggers	
7	Feburary2024- W.D	8	2	FUNCTIONAL PROTECTION AND CRASH RECOVERY	
7	W.D			protection against crashes: different types of crashes; backup,	
				journal,	
	Mo	nth Activity			
				rollback, committed and uncommitted transactions, security or	
8	March2024- W.D	4	2	security on database, Transaction concept, Transaction state,	
0				serializability security or Database: user identification.	
				Physical Protection and maintenance	
	Mo	nth Activity		Sessional	(Mhuh

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## DEPARTMENT OF MATHEMATICS AND COMPUTER

#### Session-2023-24

Class- B.Sc. III yr.(CA) (Major) Paper-II (Computer Networks)

<u>Faculty</u>-Aarti Chouksey (Computer Application)

### Teaching Plan for the Academic Year 2023-24

S.N.	Month & No.	AvailableP	No.of	Topics to be covered	Remark
	of working Days	eriods	Peroids per Week		
			:	Overview Goals & Applications, Network Hardware: LAN,MAN,WAN and Internet, Wireless networks,	
				Inter Networks,	
1	August 2023- W.D25	9	2	Network Software: Protocol Hierarchies, Design Issues, I	COMPLETED
	W.D23			Interfaces and Services,	
	Mo	nth Activity			
				Connection Oriented And Connection less Services	
2	September23- W.D24	8	2	Service Primitives. Introduction to Network, OSI reference model, TCP/IP	COMPLETED
				reference model. Transmission Media: Magnetic Media,	
				Twisted-Pair cables, Baseband & Broadband	
	Me	onth Activity			
				Coaxial cables,, Fiber Optics. Wireless	
				Transmission: Radio	
3	October23- W.D23	7	2	Point to point network	COMPLETED
				Transmission, Microwave Transmission.	(Nhubers

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S.N.	Month & No. of working Days	Available Periods	No.of Peroids per Week	Topics to be covered	Remark
4	November23- W.D18	5	2	Data Link Layer: Framing, Error Control, , DLC Protocols: Simplex, Stop-and Wait, Sliding Window protocol, HDLC. Medium Access Sub Layer: Sliding	COMPLETED
	Me	onth Activity			
5	December23- W.D25	10	2	Window Protocol. Static & Dynamic Channel allocation ALOHA & slotted ALOHA. Network Layer: Design Issues Virtual Circuits Datagram, Internetworking Repeaters, Hubs, Bridges, Switches, Router, Gateway	
	M	onth Activity			
6	Janurary2024- W.D26	10	2	Addressing,Internet address, classful address Routing algorithms: Optimality principle, Shortest path routing - Dijkstra, , bellman-ford, flooding and broadcasting, distance vector routing	
	М	onth Activity			
7	Feburary2024- W.D	8	2	link state routing, flow based routing, multicasting, routin routing, Transport Layer: Services & Protocols (TCP and UDP), congestion control Presentation Application Layer:  Presentation concepts, Cryptography:	
	М	onth Activity	1		
8	March2024- W.D	4	2	Substitution and transposition, ciphers Application Layer: Network Security,, DNS, SNMP, E¬ mail, WWW, Network Multimedia Applications	
	М	onth Activity	1	Sessional	(Markou

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### GOVT. M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JÀBALPUR (M. P.)

Session : 2022-23

TEACHING PLAN FOR THE ACADEMIC YEAR 2022-23 (UNDER GRADUATE)

Class : B.Sc. I year (CA)

Paper : I (Programming In C Language)

Faculty Name: Mrs. Pragati Patel

S.N.	Month	No. of period per month	Topics to be covered	Remarks
1	Aug	6	Programming Fundamentals :proramming Concept,Introduction,history of c,algorithm,structure of c program,Flowchart,Programming Techniques, Recursion	completed
2	Sep	7	Cohesion & Coupling programming, Debugging and their tools, Modular structure programming, 'C' tokens ,variables, expressions, Identifiers, keywords, Data types,Constants, Operators, Evaluation of expression,Type conversion in expressions, Basic input/output and library functions	completed
3	Oct	8	Descision Making branching :if-else ,switch ,conditional operator &goto statements If statement,ifElse statement, Nesting of IfElse statement, else if ladder, switch statement ,Compound statement ,Looping: Introduction ,while statement, do statement, for statement,Break and continue,do-while loops	completed
4	Nov	6	Functions: utility of functions, call by value & call by reference, categories of functions, categories of user defined function, return values and their types, Functions with variable number of arguments, Scope and life of variables	
5	Dec	8	Arrays: what is array, declaring initializing, accessing individual elements in an array ,String : declarition ,string functions - streat , strepy , stremp, strlen, strstr	completed
6	Jan	8	Pointers: Basics of pointers and operators, Pointer expression, Pointer expression, Pointers and functions, Pointers and strings, Structures: structure definition, declaring and initializing Structure variables, the structure tag Unions: initialization and use of it in a program	
7	Feb	5	Structures: structure definition, declaring and initializing Structure variables, the structue tag Unions: initialization and use of it in a program	completed
8	Mar	6	File management: Introduction - File handling ,file structure,file types streams, Text , File system basics ,The file pointer ,Opening a file ,closing a file, Writing a character, Command line arrguments	completed



## GOVT. M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JABALPUR (M. P.)

Session : 2022-23

TEACHING PLAN FOR THE ACADEMIC YEAR 2022-23 (UNDER GRADUATE)

Class: B.Sc. I year (cs)

Paper : I (Computer System Architechture)

Faculty Name: Mrs. Pragati Patel

S.N.	Month	No. of period per month	Touters	
1	Aug		Topics to be covered	-
	C	8	Fundamentals of Digital Electronics Logic Cotton B.	Remark
2	Sep	-	Fundamentals of Digital Electronics, Logic Gates, Boolean Algebra, Map Simplification, Combinational Circuits, Sequential Circuits	
	Зер	8	Basic Computer Organization Instruction O	Completed
3	Oct		Basic Computer Organization Instructions, Computer Registers, Design of Basic Computer	Completed
		7	Instructions Pagister Touris	preteu
4	Nov	5	Instructions ,Register Transfer and Micro operations	Complete
5	Dec	7	1 locessor and Control Unit Pinelining	Completed
6	Jan	7		Completed
		/	Parallelism: Meaning, types of parallelisms, Meaning, types of parallelisms	Completed
			parallelism, Parallel processing	
			Flynn's classification, Hardware multithreading Introduction, types, advantages and applications. Multicore-processors: Introduction, types, advantages	
			and applications. Multipages	
_			and applications. Multicore-processors: Introduction, advantages, difference from multiprocessor.	
7	Feb	7	Indian Contribution and a second	
- 1			Indian Contribution to the field: Contributions of reputed scientists of Indian origin, Multicore-processors: Introduction	Completed
8	Mar			1
٩	ivial		Parallel Computing Projects of India PARAM, ANUPAM, FLOSOLVER, CHIPPS etc. Other relevant contributes and an indianal contributes and an india	Completed
		6	CHIPPS etc. Other relevant contri tors and contributions.	pieteu
			other relevant contri tors and contributions.	Complete
				Complete



### GOVT, M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JÂBALPUR (M. P.)

Session: 2022-23

TEACHING PLAN FOR THE ACADEMIC YEAR 2022-23 (UNDER GRADUATE)

Class: B.Sc. II year (CA)

Paper: I (Data Base Management System)

Faculty Name: Mrs. Pragati Patel

S.N.	Month	No. of period per month	Topics to be covered	
1	Aug	7		
2 Sep	Sep	6	Strong entity & week activity	completed
		Strong entity & weak entities ,Generalization ,Specialization,Aggregation, Reducing ER diagram to tables, Relational ,Hierarchical and Network Model, Normalization :First ,Second ,Third &BCNF Normal forms		
3	Oct	8	The Country of the Co	
4	Nov	6	Primary key, candidate key .Integrity rules: entity integrity ,referential rule Relational algebra: select ,project, cross product ,diffeerent types of join theta join ,equal join, natural join, set operations definition of union ,set difference ,Cartesian product	completed
5	Dec	7		completed
6	Jan	8	pros, computation on table data	completed
7	Feb	6	against crashes: different types of crashes backup, journal, rollhed covery: protection	completed
8	Mar		Tancommitted transactions, security on database	completed
		6	dentification Physicial protection and maintenance	completed



## Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II  A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions.  B Organo sulphur compounds. Nomenclature, structural characteristics. Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods of preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose introductory idea of maltose, sucrose, and lactose (Excluding structures Polysaccharides-introductory idea of starch and cellulose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glycerides Hydrogenation of unsaturated oil, saponification value, iodine value and acid synthetic Detergents:- Alkyl and aryl sulphonate.  Unit – IV  A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acids structure and stereo chemistry. Acid base behavior, Isoelectric point and

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide. Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methyl orange, Congored, Malachite green, crystal violet, Phenophthalein, Fluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit – V Introduction of pyrrole ,furan ,thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reactions with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridine,
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compounds. Indole, Quinoline and isoquinoline-preparations and chemical properties (Fischer-Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis). Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. I semester	
Paper:	Paper IV: Spectroscopy	
Unit:	Unit - V	
Name of Teacher:	Dr. Rohini Sharma	

Month	Syllabus
August	General introduction of Electronic Spectroscopy. Atomic Spectroscopy, Energies of atomic orbitals, vector representation of momenta and vector coupling,
September	spectra of hydrogen atom and alkali metal atoms, Molecular Spectroscopy Energy levels, molecular orbitals. transitions,
October	vibrational progressions and geometry of the excited states, Franck-Condon principle,
November	electronic spectra of polyatomic molecules, Emission spectra, radiative and non-radiative decay,
December	internal conversion, charge-transfer spectra.  Problems solving Classes, CCE, and practicals Exam
	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
Paper:	Paper IV: Spectroscopy & Diffraction Methods
Unit:	Unit - V
Name of Teacher:	Dr. Rohini Sharma

Month	y Syllabus
January	Thermodynamics of Biopolymer Solutions. Thermodynamics of biopolymer solutions, osmotic pressure and their derivation
Febrauary	Membrane equilibrium, Transport of Ions. Biopolymers and their molecular weights and their numericals
March	Structure and functions of cell membrane, Ion transport through cell membrane Nerve conduction; Evaluation of size,
April	Shape and molecular weight of biopolymers by various experimental techniques.  Problems solving Classes, CCE, and practicals Exam

Name of Class: Paper:	M.Sc. III semester
· uper.	II, Organic chemistry
Unit:	I Unit _
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy. H-NMR phenomenon. chemical shift, shielding and deshielding mechanism, mechanism of measurement, Chemical Shift,  Statistical Analysis. Emphasis should be placed on numerical problems. Significant figures. Accuracy and precision
September	chemical shift values and its correlation for protons bonded to carbon (aliphatic olefinic, aldehydic and aromatic) and other nuclei (alcohols, phenols, enols, carboxylic acids, amines, amides and mercapto).  Errors, systematic and random errors. Propagation of errors. Standard deviation. Coefficient of variation. Confidence limit.
October	Chemical exchange, effect of deuteration. Spin-spin coupling (first order spectra, AX, AB, AMX spectra). Coupling constant, Karplus curve. Complex spin-spin interactions.  Significance test. t-Test, F-Test. Rejection of a result. The least-squares method for deriving calibration graph. Correlation coefficient. Limit of detection
November	Simplification of complex spectra, nuclear magnetic double resonance, increased field strength, contact shift reagents. Nuclear Overhauser effect (NOE). FT technique  Sample Preparation for Chromatography. Solid-phase extraction, solid-phase microextraction. Extraction with molecular imprinted polymers.
December	

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV), P.
Unit:	(Elective Paper IV): Polymer Chemistry and Organic (Paper II)  Unit - II and V
Name of Teacher:	그리고 그는 그는 그는 그는 그는 그는 그는 그는 그를 하는데 하다고 있다면서 하는 것은 것은 사람들이 가는데 가는데 하는데 하는데 그렇게 되는데 하는데 그렇게 보고 있다. 얼굴 때문
Control of the second of the s	Dr. Rohini Sharma

Month	Syllabus
January	Polymer Characterisation. Significance of molecular weight of polymer. Polydispersive average molecular weight. Enzymes. Properties of enzymes, catalytic power, specificity and regulation. Fischer's lock and key and Koshland's induced fit hypothesis.
Febrauary	Number, weight and viscosity average weights. Measurement of molecular weights. End group, viscosity, Identification of active site by the use of inhibitors.  Kinetics. Transition-state theory. Michaelis-Menten equation, and Lineweaver-Burk plot.
March	light scattering, osmotic and ultracentrifugation methods. Chemical and spectroscopic analysis of polymers. X-Ray diffraction study Coenzyme chemistry. Structure and biological functions of coenzyme A, thiamine pyrophosphate, Methods of immobilization of enzymes.
April	Thermal analysis, tensile strength, fatique, impact. Tear resistance. Hardness and ab pyridoxal phosphate, NAD <sup>+</sup> , NADP <sup>+</sup> , FMN, FAD, and vitamin B <sub>12</sub> .  Effect of enzyme immobilization on enzyme activity rasion resistance Enzyme mechanisms for chymotrypsin, lysozyme and carboxypeptidase A.

CAMPAGE CONTRACTOR	Swati Tiwari	
Class : I	Teaching Plan For the Session 2022-2023 Class: B.Sc. II year Paper: Chemistry	
Month	Topic -	
July	Bridge Course	
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory Idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.	
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination  Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to  from Complexes	
October	2. Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.	
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.	
	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands	

parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Teller theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series, Coordination number, coordination geometries of metal ions, types of ligands. February 2. Isomerism in coordination compounds: Structural isomerism – Ionization, Linkage, Coordination-Ligand Isomerism. Stereo isomerism: Geometrical isomerism: Square planar metal complexes of type-[MA2B2], [MA2BC], [M(AB)2], [MABCD]. Octahedral metal complexes of type- [MA<sub>4</sub>B<sub>2</sub>], [M(AA)<sub>2</sub>B<sub>2</sub>], [MA<sub>3</sub>B<sub>3</sub>]. Optical isomerism: Tetrahedral complexes of type- [MABCD], Octahedral complexes of type- [M(AA)<sub>2</sub>B<sub>2</sub>], [M(AA)<sub>3</sub>] CCE And Class test

<u> </u>	Suman Upadhyay
San Aller Marie	20202022
Class: D	Plan For the Session 2021-2023 Sc. II Year Topic
Paper : C	
Month	Bridge Course
July	
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Maharas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to from Complexes.
October	Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only).  4. Transuranic elements: General Introduction.
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik. Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square plant and Octahedral complexes. Limitations of VBT.
nuary	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of dorbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field

	Mrs Swati Tiwari
Class : B.Sc	lan For the Session 2022-2023 c. Part III ysical Chemistry
Month	Topic
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO- $H_2$ ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of $\sigma$ , $\sigma^*$ , $\pi^*$ orbitals and their characters. Hybrid orbitals-sp.sp <sup>2</sup> , sp <sup>3</sup> : calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of $H_2$ ion, comparison of M.O. and V.B. models.
September	Spectroscopy: Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom.  Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
November	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules.  Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
December	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application to organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ , unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

Name of Class:	M.Sc. II semester
Paper:	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Biological Cell and its Constituents. Biological cell. Structure and functions of proteins, enzymes, DNA and RNA in living systems.
February	Helix coil transition. Bioenergetics. Standard free energy change in biochemical reactions; exergonic and endergonic reactions.
march	Hydrolysis of ATP. Synthesis of ATP from ADP.  Statistical Mechanics in Biopolymers. Chain configuration of macromolecules statistical distribution end to end dimensions.
April	Polypeptide chain binding and proteins, introduction to protein folding problem.
May	

Name of Class:	M.Sc. III semester
Paper:	Elective Paper IV: Analytical Chemistry PAPER I: Inorganic Chemistry
Unit:	Unit - V and IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
August	Acid-Base Titrations. Kjeldahl method for determination of nitrogen.  Determination involving acetylation (amino and hydroxyl groups); and oximation (carbonyl group).  Bioinorganic Chemistry. Metal containing enzymes:  Precipitation Titrations. Argentometric titrations. Mohr titration. Volhard
September	titration. Fajan titration. Carboxypeptidase-A, Carbonic anhydrase, arginase,
October	Complexometric Titrations. Titration with EDTA. Indicators for EDTA titrations. Titration methods: direct and back titrations, and displacement methods. Masking and demasking agents, and their use in EDTA titrations.  "urease, DNA polymerase, phosphoglucomutase (glucose storage):
November	Redox Titrations. Determination of 1,2-diols by periodate oxidation. Kar Fischer titration of water. Determination of DO, BOD and COD. structure and reactivity
December	Theory Exam and semester Break

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper V): Chemistry of Natural Products
Unit:	Unit - V
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Vitamins and Antibiotics. Vitamins. Structure and synthesis of vitamin B <sub>1</sub>
February	Structure and synthesis of (thiamine), B <sub>2</sub> (riboflavin) and B <sub>6</sub> (pyridoxine).
march	Chemistry of Vitamin $B_{12}$ .  Antibiotics. Structure and synthesis of penicillins and chloramphenicol
April	Structure and synthesis of chloramphenicol
May	

	Mrs Suman Upadhyay		
Class : B.	Teaching Plan For the Session 2021-2022 Class: B.Sc. Part I Paper: Paper I		
Month	Topic		
August	Acid-Base concept Arrhenius concept, Bronsted-Lowry's concept, conjugate acids and bases, relative strength of acids, Lewis's concept, pH, buffer solutions. Acid-base neutralisation curves, Handerson equation.		
September	pK values.Indicator, choice of indicators.  Fundamentals of Organic Chemistry  Structure, shape and reactivity of organic molecules: Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation.		
October	Cleavage of Bonds: Homolysis and Heterolysis.Reactive Intermediates: Carbocations, Carbanions and free radicals.Nucleophiles and electrophiles.		
November	Stereochemistry of Organic compounds: Concept of isomerism.Geometrical isomerism: Determination of configuration of geometric isomers. E & Z system of nomenclature, geometric isomerism in oximes and alicyclic compounds.		
December	Optical isomerism: Elements of symmetry, molecular chirality, enantiomers & their properties, stereogeniccentre, optical activity of enantiomers. Concept of chirality (up to two carbon atoms): chiral and achiral molecules with two stereogeniccentres, diastereomers, threo and erythroisomers, meso isomer, resolution of enantiomers, inversion, retention and racemization. Relative and absolute configuration, sequence rules, D & L and R & S systems of nomenclature.		
January	Conformations and Conformational analysis Conformations of ethane, butane and cyclohexane. Interconversion of Wedge Formula, Newman, Sawhorse and Fischer representations.		
	Chemical Kinetics: Rate of reaction, Definition and difference of order and molecularity. Derivation of rate constants for first, second, third and zero order reactions and examples. Derivation for half-life period. Methods to determine the order of reactions. Effect of temperature on rate of reaction, Arrhenius equation, concept of activation energy.		
Pebruary	Ionic Equilibria:  Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Common ion effect. Sal hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Solubility and solubility product of sparingly soluble salts — applications of solubility product.		

	Mra Suman Upadhaya	
Teachi Class : Paper :	ng Plan For the Session 2022-2023 D.Sc. Part I U	
Month	Tople	
July	Bridge Classes	
August	Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential. Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.	
Septembe	Introduction, Principle and Classification, Mechanism of separation: adsorption, partition & ion-exchange.  Development of chromatograms; frontal, clution and displacement methods.	
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.	
November	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.	
December	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.	
nuary	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy- Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts. UV spectra of conjugated polyenes and enones.	
	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.	

	Mrs. Suman Upadhyay
Class	ing Plan For the Session 2022-2023 : B.Sc. Part III : Inorganic Chemistry    Topic
100	
July	Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
Septembe	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> </ol>
October	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
lovember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathu Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-coupling, Determination of ground state term symbol. Correlation of μ <sub>s</sub> and μ <sub>eff</sub> value Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

Decem	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.
Pebruary	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	Meal
Paper:	M.Sc. I semester Paper: III Physical Chemistry
Unit:	Unit - IV
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
August	Chemical Dynamics (Part I). Methods of determining rate laws
September	, Arrhenius equation, collision theory of reaction rates,
October	steric factor, activated complex theory, ionic reactions,
November	kinetic and thermodynamic control of reactions.
December	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - II
Name of Teacher:	

Month	Syllabus
January	X-ray Diffraction. Bragg condition, Miller indices, Laue method, Bragg method,
February	Debye-Scherrer method of X-ray structural analysis of crystals, index reflections, identification of unit cells from systematic absences in diffraction pattern.
march	Structure of simple lattices and X-ray intensities, structure factor and its relation to intensity and electron density.
April	Description of the procedure for an X-ray structure analysis.
May	

Name of Class	Wr. 25. III Sennessen
Sahan	PATER WE PRESCUE SHILL SHOW CHAMINGS
limit:	W-ZmV
Name of Teacher:	Mrs. Suman Upadhyay

Monoh	Syliabus
August	Montogeneous Cumpais Stricthicuscusic senericum (in emint) nin
Sabtemper	. Assumptioners and set find the second of the second seco
Octomber	Active Standard Condense Appended with the works of state to contact merepaining of personal and security and
November	anaganay bissinstissi ang anaganay month jempen
December	

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV): Polymer Chemistry
Unit:	Unit - V
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
January	Properties of Polymers. Properties of polyethylene, polyvinyl chloride,
Febrauary	polyamides, polyesters, phenolic resins, epoxy resins and silicone polymers. Functional polymers. Fire retarding polymers,
March	and electrically conducting polymers. Biomedical polymers. contact lens,
April	dental polymers, artificial heart, kidney, skin and blood cells.

1	Dr. Mamta Singhai
	lan For the Session 2021-2022
Class : B.S.	다음했다고 있다. 그리고 있다. 그리고 있는 그리고 1944에 대한 대학 기계를 가면 하는데 전에 하는데 이렇게 하는데 이번 사람들이 되었다면 그러는데 이렇게 하는데 이렇게 되었다면 그리고 있다.
Paper : Che	
Month	Topic
July	Thermodynamics  1. First law of Thermodynamics Concept of heat (Q), work (W), internal energy (U), Statement of first law, Enthalpy (H), Relation between heat capacities. Calculations of Q, W, $\Delta U$ and $\Delta H$ under isothermal and adiabatic conditions for Reversible, Irreversible and Free (ideal and van der Waals) expansions of gases.
	Joule Thomson effect and its theory, Inversion temperature.
August	2. Second law of Thermodynamics Carnot cycle, Statement of the Second law of Thermodynamics. Concept of Entropy, Calculation of entropy change for Reversible and irreversible processes, Concept of residual entropy, Free Energy Functions: Gibbs and Helmholtz energy. Variation of entropy (S),
September	Gibbs free energy (G), work function (A) with temperature (T), volume (V) and pressure (P). Free energy change and spontaneity,. Gibbs- Helmholtz equation.  3. Thirdlaw of Thermodynamics Nerst heat theorem and its significance, Statement of third law, Calculation of absolute entropy of substance.  Electrochemistry Electrical Conduction: Conduction in metals and in electrolyte solutions, Specific,
	equivalent and molar conductivity. Measurement of equivalent conductance. Effect of dilution on conductivity. Migration of ions. Kohlrausch law and its applications.
October	Weak and strong electrolytes: Theory of strong electrolytes, Debye-Huckel-Onsager (BHO) theory and equation.  Transport numbers: Determination of transport numbers by Hittorf method and Moving boundary method.  Electrode reactions: Nernst equation, Derivation of equation for single electrode potential.
ovember	Electrodes: Reference electrodes, Standard hydrogen electrodes, Quinhydrone electrode, Glass electrode, Calomel electrode. Standard electrode potential. Electrochemical series and its applications. Electrochemical cells: Nernst equation, calculation of e.m.f. of cell

December	Phase equilibrium
	Concept of phases. Components and degrees of freedom. Thermodynamic dori
	Gibbs Phase Rule for reactive and nonreactive systems. Clausius- Clapeyron equation and its applications to Solid-Liquid, Liquid-Vapour and Solid-Vapour equilibria
January	Phase diagram for one community
	Phase diagram for one component systems with applications- Water and Sulphur. Phase diagrams for systems of solid-liquid equilibria involving — Eutectic, Congruent and Incongruent melting points. Water and Sulfur system, Ag-Pb and Mg-Zn system, NaCl-H <sub>2</sub> O system.
February	Binary solutions: Paguille I
	Binary solutions: Raoult's Law, Ideal and Non-ideal or Azeotropic mixtures, immiscible liquids, Steam distillation.
	CCE And Class test

Name of Class:	M.Sc. III semester
Paper:	Paper IV (Analytical chemistry)
Unit::	Unit - III
Name of Instructor:	Dr. Mamta Singhai

Month	Syllabus
July	Introduction of chromatography, cation exchange and anion exchange, type of exchangers, synthetic exchangers, natural exchangers
August	Action of anion exchange resins, ion exchange equilibria, solvent extraction with crown ether and factors influencing it
September	Ion exchange capacity, strongly and weekly acidic cation exchangers, strongly and weekly basic anion exchangers
October	liquid ion exchangers, ion chromatography, conductivity detection using suppressors column
November	Solvent extraction, distribution coefficient, factors favoring solvent extraction, synergetic effects, extraction and stripping
December	Theory Exam and semester Break

Name of Class:	M.Sc. I semester
Paper:	Paper IV (Spectroscopy)
Unit::	Unit - VI
Name of Instructor:	Dr. Mamta Singhai

Month	Syllabus
July	Introduction of raman spectroscoty, difference between IR & Raman, classical theory
August	Quantum theory of Raman effect, pure rotational raman spectra, vibrational raman spectra
September	Selection rule, mutual exclusion pniciple
October	Resonanace raman spectroscopy, coherent anti- stock raman spectroscopy
November	Application of raman spectroscopy, Discussion about MCQS, Class test
December	Theory Exam and semester Break

Medicina	Dr. Pramesh Bohre
Ch	aching Plan For the Session 2022-2023 ss : B.Sc. Part III ser : Inorganic Chemistry ath Topic —Bridge Course
AND COLUMN TO SERVICE STATE OF THE SERVICE STATE OF	Hard and Soft Acids and Bases (HSAB) Introduction: Classification of hard and soft acid-base consequence of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, a bonding theory, and Dragowayland theory, electronegativity and hardness and softness limitations of hard soft acid-base concept.
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December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
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	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	M.Sc. II &IV
Paper:	Paper II & II,III
Unit:	Unit - V & IV, V
Name of Instructctor:	Dr. Pramesh Kumar Bohre
Date:	

Month	Syllabus
January	Infrared and Raman Spectroscopy. Instrumentation and sample handling. Calculation of vibrational frequencies. overtones, combination bands and Fermi resonance. FT-IR.  Resonance Raman effect. Concept and factors that influence group frequencies. Elimination Reactions. The E2, E1 and E1cB mechanisms and their spectrum. Orientation of the double bond.  Nucleophilic and Electrophilic Reactivity. Structural and electronic effects on S <sub>N</sub> 1 and S <sub>N</sub> 2 reactivity. Intramolecular assistance.
February	Characteristic vibrational frequencies of alkanes, alkenes, alkynes, carbonyl compounds, alcohols, ethers, amines, phenols and aromatic compounds. Reactivity, effect of substrate structure, attacking base, the leaving group and the medium.  Solvent effects on nucleophilic displacements. Kinetic isotope effects.
March	Finger-print region. Effect of hydrogen bonding and solvent effect on vibrational frequencies, The Hofmann degradation. Dihalo-elimination. Decomposition of toluene-psulphonylhydrazones. Conversion of ketoximes to nitriles. N-Nitrosoamine to diazoalkane transformation. curve-crossing model.
April	Electronic effects and reactivity in S <sub>N</sub> 2 reaction, Relationship between polar and electron transfer reactions.  Elimination versus substitution. Mechanism and orientation in pyrolytic elimination.
May	Theory Exam and semester Break

Name of Class:		
Paper:	M.Sc.I & III semester	
Unit:	raper IV & Paper LIV	A 1985
Name of Instruct	Onit - 1 & III,V	
uctor:	Dr. Pramesh Kumar Bohre	

	Syllabus
July	Unifying Principles. Electromagnetic radiation, interaction of electromagnetic radiation with matter-absorption, intensity of spectral lines.  Nuclear Magnetic Resonance Spectroscopy. NMR Shift reagents,  Miscellaneous Photochemical Reactions. Photo-Fries reactions of annelid's,  Photo-Fries rearrangement. Photodegration of polymers
August	Photo-Fries rearrangement. Photodegration of polymers.  emission, transmission, reflection, refraction, dispersion, polarisation and scattering.  shift mechanism and its utility in simplification of NMR spectra.  Photochemical formation of smog.
September	Uncertainty relation and natural line with
October	Applications of NMR in characterization of coordination compounds.  transition probability, transition moment, selection rules,  Photochemistry of vision.
November	Singlet molecular Oxygen reaction. Barton reaction.
December	Theory Exam and semester Break

	Dr. Pramesh Bohre
Teachi	ng Plan B
Class:	B.Sc. Part III
raper	Inorganic Chemistry
Month	Topic
July	1. Hard and Soft Acids and Bases (HSAB)  Introduction: Classification of 1
	Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and banding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Div.
	2. Silicones and Phosphazenes Introduction a citizen
Septembe	Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> </ol>
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January	<ul> <li>B. Organometallic Chemistry</li> <li>Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.</li> <li>A. Bio-Inorganic Chemistry         Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.     </li> </ul>
	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

	Dr. Priyanka Parashar	
Teaching Plan For the Session 2022-2023 Class; B.Sc. Part III Paper; Inorganic Chemistry		
Month	Topie	
July	<ol> <li>Hard and Soft Acids and Bases (HSAB)         Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.     </li> </ol>	
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Name of Class:	M.Sc. II &IV
Paper:	Paper III & III,II
Unit:	Unit - I & III, I
Name of Instructctor:	Dr. Priyanka Parashar
Date:	

Month	Syllabus		
January	<sup>13</sup> C-NMR Spectroscopy General considerations, wide band H-decoupled and off-resonance H-decoupled spectra. Two-dimension NMR spectroscopy. Conjoint Spectroscopy Problems. Photochemistry. Thermal and photochemical reactions. Laws of photochemistry, primary and secondary processes; Photogalvanic and photoatalytic effects.		
February	chemical shift (aliphatic, olefinic, alkyne, aromatic, heteroaromatic and carbonyl carbon) quantum yield and its determination, abnormal quantum yield,		
March	Calculation of chemical shift values for alkanes and substituted benzene. Fluorescence and phosphorescence, chemiluminescence, photosensitation.		
April	COSY, and DEPT techniques. Application of UV, IR, Raman, NMR and Mass spectrometry for elucidation o structure of organic compounds.		
May	Theory Exam and semester Break		

Name of Class:	M.Sc.I & III semester
	Paper II & Paper III ,II
Paper: Unit::	Unit - II & IV,II
Name of Instructor:	Dr. Priyanka Parashar

Month	Syllabus
July	Stereochemistry. Chirality, elements of symmetry, molecules with more than one chiral center, threo and erythro isomers.  Introduction Pericyclic reactions. Woodward-Hoffmann correlation diagrams. FMO and PMO approach.
August	R and S configuration. Separation of enantiomers. Regioselective, stereospecific and stereoselectiverections.  Molecular orbitals and their symmetry. Molecular orbitals of ethylene,
September	Asymmetric synthesis. Optical activity in the absence of chiral carbon (atropisomerism)-biphenyls, allenes and spiranes, and their nomenclature.  1,3- butadiene, 1,3,5-hexatriene and allyl system, and their symmetry properties.
October	Effect of conformation on reactivity.  Characteristics and classification. Electrocyclic reactions: conrotatory and disrotatory motions, 4n,
November	Conformational analysis of cyclohexanes and decalins.  4n+2 and allyl systems.
December	Theory Exam and semester Break

	Dr. Priyanka Parashar
Ciass . D.	Plan For the Session 2022-2023 Sc. Part III
Paper : In	organic Chemistry
Month	Topic -Bridge Course
July	1. Hard and Soft Acids and Bases (HSAB) Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
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September	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> </ol>
ctober	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
vember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism. Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathur Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-S coupling, Determination of ground state term symbol. Correlation of μ <sub>s</sub> and μ <sub>eff</sub> values Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	<ul> <li>B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-methods. Properties. Bond nature and application; Organometallic compounds of Al, Preparation. Properties, Bond nature and applications.</li> <li>A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.</li> </ul>
February	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

	Dr Maneesha Jain
Teaching Class: B Paper: I	Plan For the Session 2022-2023 Se. Part I
Month	Tople
July	Bridge Classes
August	Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.
September	
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.
Vovember	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.
ecember	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.
	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy- Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts.  UV spectra of conjugated polyenes and enones.
	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.

graduation in the special research	Dr Manosha Jalo
Class ? B.	Plan For the Session 2022-2023 So Part III lorganic Chemistry Topic
July	<ol> <li>Hard and Soft Acids and Bases (HSAII)         Introduction: Classification of hard and soft acid-base, Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.     </li> </ol>
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
September	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> </ol>
October	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
lovember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathe Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; Lecoupling, Determination of ground state term symbol. Correlation of $\mu_s$ and $\mu_{eff}$ value Orbital contribution to magnetic moments and application of magnetic moment data 3d-metal complexes.

December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.
	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	M.Sc. III semester
Paper:	PAPER II: Organic Chemistry
Unit:	Unit - II
Name of Teacher:	Dr. Maneesha Jain

Month	Syllabus
August	Photochemistry: Part I. Photochemical Reactions. Interaction of electromagnetic radiation with matter
September	, types of excitations, fate of excited molecule, quantum yield.  Photochemistry of Carbonyl Compounds. Norrish type I and type II reactions;
October	$\alpha$ -cleavage of cyclic and acyclic, $\beta$ , $\gamma$ - unsaturated and $\alpha$ , $\beta$ -unsaturated compounds Dimerisation, and the Patterno-Büchi reaction.
November	Rearrangement of dienones. Photoreduction.
December	Theory Exam and semester Break

Name of Class:	M.Sc. III semester
Paper:	PAPER III: Physical/Solid State Chemistry
	Elective Paper IV: Analytical Chemistry
Unit:	Unit - IV and IV
Name of Teacher:	Dr. Maneesha Jain

Month	Syllabus
August	Crystal Defects. Perfect and imperfect crystals, stoichiometric and mon- stoichiometric defects.  Atomic Absorption Spectrometry. Principle. Instrumentation. Flame atomization.
September	Intrinsic and extrinsic defects, point defects, line and plane defects; Hollow-cathode lamps. Inductively coupled plasma-mass spectrometry.
October	Schottky and Frenkel defects.  Solid State Reactions. General principles, Electrolytic Methods. Fundamentals of the techniques: Voltammet Polarography.
November	coprecipitation as a precursor to solid state reactions, factors affecting solid streactions.  Differential pulse polarography. Cyclic voltammetry. Anodic stripping analysis.
December	

Mame of Class:	MSE IV Semester
Paper:	(Elective Paper V): Chemistry of Natural Products
Unit:	The second secon
Control of the contro	Dr. Manesha Jain

Month	Syllabus
January	Terpenaids. General methods of structure elucidation. Isoprene rule. Structure Steroids. Structure elucidation, stereochemistry and chemical synthesis of cholesterol.
Febrauary	determination, stereochemistry, and synthesis of the following representative molecules: citral, stereochemistry and chemical synthesis of bile acids, androsterone,
	stereochemistry, and synthesis of the geraniol, α-terpineol, menthol, α-pinene,
March	stereochemistry and chemical synthesis of testosterone, estrone, progestrone and aldosterone.
March April	

	Dr Nisha Singh
Teaching	Plan For the Session 2022-2023
Class: B.: Paper: Pa	
Month	Topic
July	Mathematics for Chemists Straight line equation, Logarithmic relations, curve sketching
August	graphs & calculation of slopes. Differentiation, differentiation of functions like $k_x$ , $e^x$ , $x^n$ , sinx, logx, maxima & minima, partial differentiation. Integration of some useful relevant functions.
September	Basic Analytical Chemistry: Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures, statistical terms: mean, mean deviation, median, standard deviation, Numerical Problems.
October	Calculations used in Analytical Chemistry Some Important units of measurements- SI Units, distinction between mass and weight, mole, milli mole and Numerical Problems.
lovember	Solution and their concentrations-Concept of Molarity, molality and normality. Expressing the concentration in parts per million (ppm), parts per billion (ppb), Numerical Problems.
ecember	Chemical Stoichiometry- Empirical and Molecular Formulas, Stoichiometric Calculations, Numerical Problems.
nuary	Computer for Chemists Introduction to computer, Introduction to operating systems like -DOS. Windows, Linux and Ubuntu.
bruary	Use of computer programs Running of standard programs & packages such as MS-word, MS-excel, PowerPoint, Execution of linear regression x-y Plot. Use of softwares for drawing structures and molecular formulae.

Name of Class:	M.Sc. II semester
Paper:	Paper II (Organic Chemistry)
Unit:	Unit- V
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Bridge course
August	Ultraviolet and Visible Spectroscopy. Electromagnetic radiation, wavelength, wave number,
September	frequency, and energy calculation. Electronic transitions (185-800 nm),  Beer-Lambert law, effect of solvent on electronic transitions
October	Fieser-Woodward rules for conjugated dienes and carbonyl compounds.
November	Optical Rotatory Dispersion (ORD) and Circular Dichroism (CD).  Concept of ORD and CD, deduction of absolute configuration, octant
	rule for ketones.

Name of Class:	M.Sc. II Semester
Paper:	Paper II & IV (Organic Chemistry & Spectroscopy & Diffraction)
Unit:	Unit- III & I
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
January	Addition to Carbon-Carbon Multiple Bonds. Mechanistic and stereochemical aspects of addition reactions.  Photoelectron Spectroscopy. Basic principles; photo-electric effect, ionization process, Koopman's theorem. Photoelectron spectra of simple molecules,
February	Hydroboration. Michael reaction. Sharpless asymmetric epoxidation.  Addition to Carbon-Hetero atom Multiple Bonds.  ESCA, chemical information from ESCA. Auger electron spectroscopy - basic idea.
March	Mechanism of metal hydride reduction of carbonyl compounds, acids esters and nitriles. Wittig reaction.  Mechanism of condensation reactions involving enolates.  Photoacoustic Spectroscopy. Basic principles of photoacoustic spectroscopy (PAS),
April	Mannich, Benzoin, Perkin, and Stobbe reactions chemical and surface applications.
[ay	Theory exam and semester break

#### 2022-23

Name of Class:	M.Sc. IV semester
Paper:	Elective Paper I & IV (Inorganic Chemistry & Polymer Chemistry )
Unit:	Unit- II & III
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
January	Basic principles, spectral parameters and spectrum display. Application of the technique to the studies of (1) bonding and structures of Fe <sup>+2</sup> and Fe <sup>+3</sup> compounds including those of intermediate spin,
February	(2) Sn <sup>+2</sup> and Sn <sup>+4</sup> compounds -nature of M-L bond, coordination number, structure and (3) detection of oxidation state.
March	Structure and Properties. Configuration of polymer chains. Crystal structure of polymers. Morphology of crystalline polymers. Polymer structure and physical properties; crystalline melting point Tm, melting points of homogeneous series,
April	effect of chain flexibility and other steric factors, entropy and heat of fusion. The glass transition temperature, Tg relationship between Tm and Tg, effects of molecular weight, diluents, chemical structure, chain topology, branching and cross linking. Property requirements and polymer utilization, CCE exam.
ay	Theory exam and semester break

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Name of Class:	M.Sc. I semester
Paper:	Paper II (Organic Chemistry)
Unit:	Unit- V
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Ultraviolet and Visible Spectroscopy. Electromagnetic radiation, wavelength, wave number,
August	Frequency, and energy calculation. Electronic transitions (185-800 nm), Beer-Lambert law, effect of solvent on electronic transitions
September	Fieser-Woodward rules for conjugated dienes and carbonyl compounds.
October	Optical Rotatory Dispersion (ORD) and Circular Dichroism (CD) Concept of ORD and CD
November	Deduction of absolute configuration, octant rule for ketones. CCE
YOVEINDEL	

Name of Class:	M.Sc. III semester
Paper:	Paper IV (Photochemistry)
Unit:	Unit- IV
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Bridge course
August	Photochemistry of Carbonyl Compounds. Intramolecular reactions of carbonyl compounds-saturated, cyclic and acyclic,
September	Unsaturated and α,β-unsaturated compounds
October	Cyclohexadienones. Intermolecular cyloaddition reactions
November	Dimerisations and oxetane formation, CCE exam
December	Theory exam and theory Exam

	Dr Seema Rani	
Teaching I Class: B.S	Plan For the Session 2022-2023	
Paper : Pa	per I	
Month	Topic	
July	Mathematics for Chemists Straight line equation, Logarithmic relations, curve sketching	
August	graphs & calculation of slopes. Differentiation, differentiation of functions like $k_x$ , $e^x$ , $x^n$ . sinx, logx, maxima & minima, partial differentiation. Integration of some useful relevant functions.	
September	Basic Analytical Chemistry: Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results. from the point of view of significant figures, statistical terms: mean, mean deviation, median, standard deviation, Numerical Problems.	
October	Calculations used in Analytical Chemistry Some Important units of measurements- SI Units, distinction between mass and weight, mole, milli mole and Numerical Problems.	
November	Solution and their concentrations-Concept of Molarity, molality and normality. Expressing the concentration in parts per million (ppm), parts per billion (ppb), Numerical Problems.	
December	Chemical Stoichiometry- Empirical and Molecular Formulas, Stoichiometric Calculations, Numerical Problems.	
January	Computer for Chemists Introduction to computer, Introduction to operating systems like -DOS Windows, Linux and Ubuntu.	
February	Use of computer programs Running of standard programs & packages such as MS-word, MS-excel PowerPoint, Execution of linear regression x-y Plot. Use of softwares for drawing structures and molecular formulae.	

	Dr Seema Rani
Class	ing Plan For the Session 2022-2023 : B.Sc. Part III : Physical Chemistry
Mont	
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO-H <sub>2</sub> ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of σ, σ*,ππ*orbitals and their characters. Hybrid orbitals-sp.sp², sp³: calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of H <sub>2</sub> ion, comparison of M.O. and V.B. models.
Septemb	Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom.  Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion are isotope on the spectrum, idea of vibrational frequencies of different functional groups.
ovember	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Ram spectra of diatomic molecules, selection rules.  Electronic Spectrum: Concept of potential energy curves for bonding and antibondi molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and consaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

Name of Class:	M.Sc.I & III semester	
Paper:	Paper III & Paper IV	
Unit::	Unit - V & II	
Name of Instructor:	Dr. Seema Rani	

Month	Syllabus
July	Dynamic chain Reactions (hydrogen-bromine reaction)  Chromatography. Theory of Chromatography. Retention time. Capacity factor.  Number of theoretical plates, and plate height.
	pyrolysis of acetaldehyde, decomposition of ethane
August	Band broadening. vanDeemter equation. Column resolution.  Gas Chromatography. Instrumentation. Columns. Detection: flame ionisation detector
	photochemical (hydrogen-bromine and hydrogen-chlorine reactions)
September	thermal conductivity detector and mass spectrometric detector.  High-Performance Liquid Chromatography. Instrumentation. Pumping systems.
	oscillatory reactions, homogeneous catalysis
October	Columns. Detection: UV-Vis detector, photodiode array detector, fluorescendetector, refractive index detector and mass spectrometric detection.
	kinetics of enzyme reactions
November	Capillary Electrophoresis. Principle, modes of operation, and instrumentation.
December	Theory Exam and semester Break

Name of Class:	M.Sc. II	
Paper:	Paper III & IV	
Unit:	Unit - IV & III	
Name of Instructctor:	Dr. Seema Rani	
Date:		

Month	Syllabus
January	Macromolecules and Colloids. Polymers, types of polymers, kinetics of polymerization,;
	Electron Diffraction. Scattering intensity vs. scattering angle, Wierl equation,
February	mechanism of polymerization reactions. Molecular mass of macromolecues, number and mass average molecular mass
	measurement technique, elucidation of structure of simple gas phase molecules. Low energy electron diffraction and structure of surfaces.
	molecular mass determination (osmometry, viscometry, diffusion and light
March	scattering methods), sedimentation, chain structures and their configuration.
March	Neutron Diffraction. Scattering of neutrons by solids and liquids, magnetic scattering, measurement techniques.
March April	scattering methods), sedimentation, chain structures and their configuration.
	Neutron Diffraction. Scattering of neutrons by solids and liquids, magnetic scattering, measurement techniques.  Emulsions. Theories of emulsification, coagulation, slow and rapid coagulation.

# Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II  A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions.  B Organo sulphur compounds. Nomenclature, structural characteristics. Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods of preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose introductory idea of maltose, sucrose, and lactose (Excluding structures Polysaccharides-introductory idea of starch and cellulose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glycerides Hydrogenation of unsaturated oil, saponification value, iodine value and acid synthetic Detergents:- Alkyl and aryl sulphonate.  Unit – IV  A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acids structure and stereo chemistry. Acid base behavior, Isoelectric point and

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide. Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methyl orange, Congored, Malachite green, crystal violet, Phenophthalein, Fluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit – V Introduction of pyrrole ,furan ,thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reactions with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridine,
Fenruary  Introductory idea about five-and six-membered condensed heterory Indole, Quinoline and isoquinoline-preparations and chemical properties of Indole synthesis, Skraup's synthesis, Bischler Napiara Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline and Isoquinolin	
March	Practical Exam

Name of Class:	M.Sc. I semester
Paper:	Paper IV: Spectroscopy
Unit:	Unit - V
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	General introduction of Electronic Spectroscopy. Atomic Spectroscopy, Energies of atomic orbitals, vector representation of momenta and vector coupling,
September	spectra of hydrogen atom and alkali metal atoms, Molecular Spectroscopy Energy levels, molecular orbitals. transitions,
October	vibrational progressions and geometry of the excited states, Franck-Condon principle,
November	electronic spectra of polyatomic molecules, Emission spectra, radiative and non-radiative decay,
December	internal conversion, charge-transfer spectra.  Problems solving Classes, CCE, and practicals Exam
	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
Paper:	Paper IV: Spectroscopy & Diffraction Methods
Unit:	Unit - V
Name of Teacher:	Dr. Rohini Sharma

Month	y Syllabus
January	Thermodynamics of Biopolymer Solutions. Thermodynamics of biopolymer solutions, osmotic pressure and their derivation
Febrauary	Membrane equilibrium, Transport of Ions. Biopolymers and their molecular weights and their numericals
March	Structure and functions of cell membrane, Ion transport through cell membrane Nerve conduction; Evaluation of size,
April	Shape and molecular weight of biopolymers by various experimental techniques.  Problems solving Classes, CCE, and practicals Exam

Name of Class: Paper:	M.Sc. III semester
· uper.	II, Organic chemistry
Unit:	I Unit _
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy. H-NMR phenomenon. chemical shift, shielding and deshielding mechanism, mechanism of measurement, Chemical Shift,  Statistical Analysis. Emphasis should be placed on numerical problems. Significant figures. Accuracy and precision
September	chemical shift values and its correlation for protons bonded to carbon (aliphatic olefinic, aldehydic and aromatic) and other nuclei (alcohols, phenols, enols, carboxylic acids, amines, amides and mercapto).  Errors, systematic and random errors. Propagation of errors. Standard deviation. Coefficient of variation. Confidence limit.
October	Chemical exchange, effect of deuteration. Spin-spin coupling (first order spectra, AX, AB, AMX spectra). Coupling constant, Karplus curve. Complex spin-spin interactions.  Significance test. t-Test, F-Test. Rejection of a result. The least-squares method for deriving calibration graph. Correlation coefficient. Limit of detection
November	Simplification of complex spectra, nuclear magnetic double resonance, increased field strength, contact shift reagents. Nuclear Overhauser effect (NOE). FT technique  Sample Preparation for Chromatography. Solid-phase extraction, solid-phase microextraction. Extraction with molecular imprinted polymers.
December	

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV), P.
Unit:	(Elective Paper IV): Polymer Chemistry and Organic (Paper II)  Unit - II and V
Name of Teacher:	그리고 그는 그는 그는 그는 그는 그는 그는 그는 그를 하는데 하는데, 나에서 하는데, 얼마나 없는데 그렇게 되었다면 그를 하는데, 아이들은 그렇게 되었다면 그렇게 되었다. 얼마나 모든데,
Control of the second of the s	Dr. Rohini Sharma

Month	Syllabus
January	Polymer Characterisation. Significance of molecular weight of polymer. Polydispersive average molecular weight. Enzymes. Properties of enzymes, catalytic power, specificity and regulation. Fischer's lock and key and Koshland's induced fit hypothesis.
Febrauary	Number, weight and viscosity average weights. Measurement of molecular weights. End group, viscosity,
March	light scattering, osmotic and ultracentrifugation methods. Chemical and spectroscopic analysis of polymers. X-Ray diffraction study Coenzyme chemistry. Structure and biological functions of coenzyme A, thiamine pyrophosphate, Methods of immobilization of enzymes.
April	Thermal analysis, tensile strength, fatique, impact. Tear resistance. Hardness and ab pyridoxal phosphate, NAD <sup>+</sup> , NADP <sup>+</sup> , FMN, FAD, and vitamin B <sub>12</sub> .  Effect of enzyme immobilization on enzyme activity rasion resistance Enzyme mechanisms for chymotrypsin, lysozyme and carboxypeptidase A.

CAMPAGE CONTRACTOR	Swati Tiwari
Class : I	g Plan For the Session 2022-2023 3.Sc. II year Chemistry
Month	Topic -
July	Bridge Course
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory Idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination  Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to  from Complexes
October	2. Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.
	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands

parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Teller theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series, Coordination number, coordination geometries of metal ions, types of ligands. February 2. Isomerism in coordination compounds: Structural isomerism – Ionization, Linkage, Coordination-Ligand Isomerism. Stereo isomerism: Geometrical isomerism: Square planar metal complexes of type-[MA2B2], [MA2BC], [M(AB)2], [MABCD]. Octahedral metal complexes of type- [MA<sub>4</sub>B<sub>2</sub>], [M(AA)<sub>2</sub>B<sub>2</sub>], [MA<sub>3</sub>B<sub>3</sub>]. Optical isomerism: Tetrahedral complexes of type- [MABCD], Octahedral complexes of type- [M(AA)<sub>2</sub>B<sub>2</sub>], [M(AA)<sub>3</sub>] CCE And Class test

<u> </u>	Suman Upadhyay	
San Aller Marie	20202022	
Class: D	Plan For the Session 2021-2023 Sc. II Year Topic	
Paper : C		
Month	Bridge Course	
July		
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Maharas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.	
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to from Complexes.	
October	Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only).  4. Transuranic elements: General Introduction.	
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik. Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square plant and Octahedral complexes. Limitations of VBT.	
nuary	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of dorbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field	

	Mrs Swati Tiwari
Class : B.Sc	lan For the Session 2022-2023 c. Part III ysical Chemistry
Month	Topic
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO- $H_2$ ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of $\sigma$ , $\sigma^*$ , $\pi^*$ orbitals and their characters. Hybrid orbitals-sp.sp <sup>2</sup> , sp <sup>3</sup> : calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of $H_2$ ion, comparison of M.O. and V.B. models.
September	Spectroscopy: Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom.  Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
November	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules.  Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
December	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application to organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ , unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)	
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.	

Name of Class:	M.Sc. II semester
Paper:	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Biological Cell and its Constituents. Biological cell. Structure and functions of proteins, enzymes, DNA and RNA in living systems.
February	Helix coil transition. Bioenergetics. Standard free energy change in biochemical reactions; exergonic and endergonic reactions.
march	Hydrolysis of ATP. Synthesis of ATP from ADP.  Statistical Mechanics in Biopolymers. Chain configuration of macromolecules statistical distribution end to end dimensions.
April	Polypeptide chain binding and proteins, introduction to protein folding problem.
May	

Name of Class:	M.Sc. III semester
Paper:	Elective Paper IV: Analytical Chemistry PAPER I: Inorganic Chemistry
Unit:	Unit - V and IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
August	Acid-Base Titrations. Kjeldahl method for determination of nitrogen.  Determination involving acetylation (amino and hydroxyl groups); and oximation (carbonyl group).  Bioinorganic Chemistry. Metal containing enzymes:  Precipitation Titrations. Argentometric titrations. Mohr titration. Volhard
September	titration. Fajan titration. Carboxypeptidase-A, Carbonic anhydrase, arginase,
October	Complexometric Titrations. Titration with EDTA. Indicators for EDTA titrations. Titration methods: direct and back titrations, and displacement methods. Masking and demasking agents, and their use in EDTA titrations.  "urease, DNA polymerase, phosphoglucomutase (glucose storage):
November	Redox Titrations. Determination of 1,2-diols by periodate oxidation. Kar Fischer titration of water. Determination of DO, BOD and COD. structure and reactivity
December	Theory Exam and semester Break

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper V): Chemistry of Natural Products
Unit:	Unit - V
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Vitamins and Antibiotics. Vitamins. Structure and synthesis of vitamin B <sub>1</sub>
February	Structure and synthesis of (thiamine), B <sub>2</sub> (riboflavin) and B <sub>6</sub> (pyridoxine).
march	Chemistry of Vitamin $B_{12}$ .  Antibiotics. Structure and synthesis of penicillins and chloramphenicol
April	Structure and synthesis of chloramphenicol
May	

	Mrs Suman Upadhyay			
Class : B.	Teaching Plan For the Session 2021-2022 Class: B.Sc. Part I Paper: Paper I			
Month	Topic			
August	Acid-Base concept Arrhenius concept, Bronsted-Lowry's concept, conjugate acids and bases, relative strength of acids, Lewis's concept, pH, buffer solutions. Acid-base neutralisation curves, Handerson equation.			
September	pK values.Indicator, choice of indicators.  Fundamentals of Organic Chemistry  Structure, shape and reactivity of organic molecules: Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation.			
October	Cleavage of Bonds: Homolysis and Heterolysis.Reactive Intermediates: Carbocations, Carbanions and free radicals.Nucleophiles and electrophiles.			
November	Stereochemistry of Organic compounds: Concept of isomerism.Geometrical isomerism: Determination of configuration of geometric isomers. E & Z system of nomenclature, geometric isomerism in oximes and alicyclic compounds.			
December	Optical isomerism: Elements of symmetry, molecular chirality, enantiomers & their properties, stereogeniccentre, optical activity of enantiomers. Concept of chirality (up to two carbon atoms): chiral and achiral molecules with two stereogeniccentres, diastereomers, threo and erythroisomers, meso isomer, resolution of enantiomers, inversion, retention and racemization. Relative and absolute configuration, sequence rules, D & L and R & S systems of nomenclature.			
	Conformations and Conformational analysis Conformations of ethane, butane and cyclohexane. Interconversion of Wedge Formula, Newman, Sawhorse and Fischer representations.			
	Chemical Kinetics: Rate of reaction, Definition and difference of order and molecularity. Derivation of rate constants for first, second, third and zero order reactions and examples. Derivation for half-life period. Methods to determine the order of reactions. Effect of temperature on rate of reaction, Arrhenius equation, concept of activation energy.			
Pebruary	Ionic Equilibria:  Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Common ion effect. Sal hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Solubility and solubility product of sparingly soluble salts — applications of solubility product.			

	Mra Suman Upadhaya	
Teachi Class : Paper :	ng Plan For the Session 2022-2023 B.Sc. Part I U	
Month	Tople	
July	Bridge Classes	
August	Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential. Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.	
Septembe	Introduction, Principle and Classification, Mechanism of separation: adsorption, partition & ion-exchange.  Development of chromatograms; frontal, clution and displacement methods.	
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.	
November	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.	
December	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.	
nuary	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy- Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts.  UV spectra of conjugated polyenes and enones.	
	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.	

	Mrs. Suman Upadhyay
Class	ing Plan For the Session 2022-2023 : B.Sc. Part III : Inorganic Chemistry    Topic
100	
July	Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
Septembe	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> </ol>
October	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
lovember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathu Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-coupling, Determination of ground state term symbol. Correlation of μ <sub>s</sub> and μ <sub>eff</sub> value Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

Decem	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.
Pebruary	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	Meal
Paper:	M.Sc. I semester Paper: III Physical Chemistry
Unit:	Unit - IV
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
August	Chemical Dynamics (Part I). Methods of determining rate laws
September	, Arrhenius equation, collision theory of reaction rates,
October	steric factor, activated complex theory, ionic reactions,
November	kinetic and thermodynamic control of reactions.
December	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
Paper:	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - II
Name of Teacher:	

Month	Syllabus
January	X-ray Diffraction. Bragg condition, Miller indices, Laue method, Bragg method,
February	Debye-Scherrer method of X-ray structural analysis of crystals, index reflections, identification of unit cells from systematic absences in diffraction pattern.
march	Structure of simple lattices and X-ray intensities, structure factor and its relation to intensity and electron density.
April	Description of the procedure for an X-ray structure analysis.
May	

Name of Class	Wr. 25. III Sennessen
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Name of Teacher:	Mrs. Suman Upadhyay

Monoh	Syliabus
August	Montogeneous Cumpais Stricthicuscusic senericum (in emint) nin
Sabtemper	. Assumptioners and set find the work of the second set from an analysis of the second
Octomber	Active Standard Condense Appended with the works of state to contact merepaining of personal and security and
November	anaganay bissinstissi ang anaganay month jempen
December	

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV): Polymer Chemistry
Unit:	Unit - V
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
January	Properties of Polymers. Properties of polyethylene, polyvinyl chloride,
Febrauary	polyamides, polyesters, phenolic resins, epoxy resins and silicone polymers. Functional polymers. Fire retarding polymers,
March	and electrically conducting polymers. Biomedical polymers. contact lens,
April	dental polymers, artificial heart, kidney, skin and blood cells.

1	Dr. Mamta Singhai
	lan For the Session 2021-2022
Class : B.S.	다음했다고 있다. 그리고 있다. 그리고 있는 그리고 1944에 대한 대학교에 가장하다는 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은 아이들은
Paper : Che	
Month	Topic
July	Thermodynamics  1. First law of Thermodynamics Concept of heat (Q), work (W), internal energy (U), Statement of first law, Enthalpy (H), Relation between heat capacities. Calculations of Q, W, $\Delta U$ and $\Delta H$ under isothermal and adiabatic conditions for Reversible, Irreversible and Free (ideal and van der Waals) expansions of gases.
	Joule Thomson effect and its theory, Inversion temperature.
August	2. Second law of Thermodynamics Carnot cycle, Statement of the Second law of Thermodynamics. Concept of Entropy, Calculation of entropy change for Reversible and irreversible processes, Concept of residual entropy, Free Energy Functions: Gibbs and Helmholtz energy. Variation of entropy (S),
September	Gibbs free energy (G), work function (A) with temperature (T), volume (V) and pressure (P). Free energy change and spontaneity,. Gibbs- Helmholtz equation.  3. Thirdlaw of Thermodynamics Nerst heat theorem and its significance, Statement of third law, Calculation of absolute entropy of substance.  Electrochemistry Electrical Conduction: Conduction in metals and in electrolyte solutions, Specific,
	equivalent and molar conductivity. Measurement of equivalent conductance. Effect of dilution on conductivity. Migration of ions. Kohlrausch law and its applications.
October	Weak and strong electrolytes: Theory of strong electrolytes, Debye-Huckel-Onsager (BHO) theory and equation.  Transport numbers: Determination of transport numbers by Hittorf method and Moving boundary method.  Electrode reactions: Nernst equation, Derivation of equation for single electrode potential.
ovember	Electrodes: Reference electrodes, Standard hydrogen electrodes, Quinhydrone electrode, Glass electrode, Calomel electrode. Standard electrode potential. Electrochemical series and its applications. Electrochemical cells: Nernst equation, calculation of e.m.f. of cell

December	Phase equilibrium
	Concept of phases. Components and degrees of freedom. Thermodynamic dori
	Gibbs Phase Rule for reactive and nonreactive systems. Clausius- Clapeyron equation and its applications to Solid-Liquid, Liquid-Vapour and Solid-Vapour equilibria
January	Phase diagram for one community
	Phase diagram for one component systems with applications- Water and Sulphur. Phase diagrams for systems of solid-liquid equilibria involving — Eutectic, Congruent and Incongruent melting points. Water and Sulfur system, Ag-Pb and Mg-Zn system, NaCl-H <sub>2</sub> O system.
February	Binary solutions: Paguille I
	Binary solutions: Raoult's Law, Ideal and Non-ideal or Azeotropic mixtures, immiscible liquids, Steam distillation.
	CCE And Class test

Name of Class:	M.Sc. III semester
Paper:	Paper IV (Analytical chemistry)
Unit::	Unit - III
Name of Instructor:	Dr. Mamta Singhai

Month	Syllabus
July	Introduction of chromatography, cation exchange and anion exchange, type of exchangers, synthetic exchangers, natural exchangers
August	Action of anion exchange resins, ion exchange equilibria, solvent extraction with crown ether and factors influencing it
September	Ion exchange capacity, strongly and weekly acidic cation exchangers, strongly and weekly basic anion exchangers
October	liquid ion exchangers, ion chromatography, conductivity detection using suppressors column
November	Solvent extraction, distribution coefficient, factors favoring solvent extraction, synergetic effects, extraction and stripping
December	Theory Exam and semester Break

Name of Class:	M.Sc. I semester
Paper:	Paper IV (Spectroscopy)
Unit::	Unit - VI
Name of Instructor:	Dr. Mamta Singhai

Month	Syllabus
July	Introduction of raman spectroscoty, difference between IR & Raman, classical theory
August	Quantum theory of Raman effect, pure rotational raman spectra, vibrational raman spectra
September	Selection rule, mutual exclusion pniciple
October	Resonanace raman spectroscopy, coherent anti- stock raman spectroscopy
November	Application of raman spectroscopy, Discussion about MCQS, Class test
December	Theory Exam and semester Break

Medicina	Dr. Pramesh Bohre
Ch	aching Plan For the Session 2022-2023 ss : B.Sc. Part III ser : Inorganic Chemistry ath Topic —Bridge Course
AND COLUMN TO SERVICE STATE OF THE SERVICE STATE OF	Hard and Soft Acids and Bases (HSAB) Introduction: Classification of hard and soft acid-base consequence of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, a bonding theory, and Dragowayland theory, electronegativity and hardness and softness limitations of hard soft acid-base concept.
Augus	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties Structure of triphosphazenes, Some other phosphazenes and uses of phosphazenes.
Septemi	1. Metal Lignad Bonding in Transition Metal Complexes, Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory,  2. Metal Lignad Bonding in Transition Metal Complexes, Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.
October	Thermodynamic and Kinetic Aspects of Metal Complexes, Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
November	Magnetic Properties of Transition Metal Complexes. Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathur, Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-S coupling, Determination of ground state term symbol. Correlation of μ, and μ <sub>eff</sub> values. Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.
	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	M.Sc. II &IV
Paper:	Paper II & II,III
Unit:	Unit - V & IV, V
Name of Instructctor:	Dr. Pramesh Kumar Bohre
Date:	

Month	Syllabus
January	Infrared and Raman Spectroscopy. Instrumentation and sample handling. Calculation of vibrational frequencies. overtones, combination bands and Fermi resonance. FT-IR.  Resonance Raman effect. Concept and factors that influence group frequencies. Elimination Reactions. The E2, E1 and E1cB mechanisms and their spectrum. Orientation of the double bond.  Nucleophilic and Electrophilic Reactivity. Structural and electronic effects on S <sub>N</sub> 1 and S <sub>N</sub> 2 reactivity. Intramolecular assistance.
February	Characteristic vibrational frequencies of alkanes, alkenes, alkynes, carbonyl compounds, alcohols, ethers, amines, phenols and aromatic compounds. Reactivity, effect of substrate structure, attacking base, the leaving group and the medium.  Solvent effects on nucleophilic displacements. Kinetic isotope effects.
March	Finger-print region. Effect of hydrogen bonding and solvent effect on vibrational frequencies, The Hofmann degradation. Dihalo-elimination. Decomposition of toluene-psulphonylhydrazones. Conversion of ketoximes to nitriles. N-Nitrosoamine to diazoalkane transformation. curve-crossing model.
April	Electronic effects and reactivity in S <sub>N</sub> 2 reaction, Relationship between polar and electron transfer reactions.  Elimination versus substitution. Mechanism and orientation in pyrolytic elimination.
May	Theory Exam and semester Break

Name of Class:		
Paper:	M.Sc.I & III semester	
Unit:	raper IV & Paper LIV	A 1985
Name of Instruct	Onit - 1 & III,V	
uctor:	Dr. Pramesh Kumar Bohre	

	Syllabus
July	Unifying Principles. Electromagnetic radiation, interaction of electromagnetic radiation with matter-absorption, intensity of spectral lines.  Nuclear Magnetic Resonance Spectroscopy. NMR Shift reagents,  Miscellaneous Photochemical Reactions. Photo-Fries reactions of annelid's,  Photo-Fries rearrangement. Photodegration of polymers
August	Photo-Fries rearrangement. Photodegration of polymers.  emission, transmission, reflection, refraction, dispersion, polarisation and scattering.  shift mechanism and its utility in simplification of NMR spectra.  Photochemical formation of smog.
September	Uncertainty relation and natural line with
October	Applications of NMR in characterization of coordination compounds.  transition probability, transition moment, selection rules,  Photochemistry of vision.
November	Singlet molecular Oxygen reaction. Barton reaction.
December	Theory Exam and semester Break

	Dr. Pramesh Bohre
Teachi	ng Plan B
Class:	B.Sc. Part III
raper	Inorganic Chemistry
Month	Topic
July	1. Hard and Soft Acids and Bases (HSAB)  Introduction: Classification of 1
	Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and banding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Div.
	2. Silicones and Phosphazenes Introduction a citizen
Septembe	Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> </ol>
October	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
ovember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathu Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L coupling, Determination of ground state term symbol. Correlation of μ <sub>s</sub> and μ <sub>eff</sub> value Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

Decembe	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	<ul> <li>B. Organometallic Chemistry</li> <li>Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.</li> <li>A. Bio-Inorganic Chemistry         Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.     </li> </ul>
	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

	Dr. Priyanka Parashar	
Teaching Plan For the Session 2022-2023 Class ; B.Sc. Part III Paper ; Inorganic Chemistry		
Month	Topie	
July	1. Hard and Soft Acids and Bases (HSAB) Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.	
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.	
September	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> </ol>	
October	Introduction: Thermodynamic aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.	
lovember	Magnetic Properties of Transition Metal Complexes. Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathu Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-coupling, Determination of ground state term symbol. Correlation of $\mu_s$ and $\mu_{eff}$ value Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.	

Decembe	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d' to d' states; Electronic spectrum [Ti (H <sub>2</sub> O) <sub>0</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals; Metalloporphyrins.
February	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  3. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	M.Sc. II &IV
Paper:	Paper III & III,II
Unit:	Unit - I & III, I
Name of Instructctor:	Dr. Priyanka Parashar
Date:	

Month	Syllabus
January	<sup>13</sup> C-NMR Spectroscopy General considerations, wide band H-decoupled and off-resonance H-decoupled spectra. Two-dimension NMR spectroscopy. Conjoint Spectroscopy Problems. Photochemistry. Thermal and photochemical reactions. Laws of photochemistry, primary and secondary processes; Photogalvanic and photoatalytic effects.
February	chemical shift (aliphatic, olefinic, alkyne, aromatic, heteroaromatic and carbonyl carbon) quantum yield and its determination, abnormal quantum yield,
March	Calculation of chemical shift values for alkanes and substituted benzene. Fluorescence and phosphorescence, chemiluminescence, photosensitation.
April	COSY, and DEPT techniques. Application of UV, IR, Raman, NMR and Mass spectrometry for elucidation o structure of organic compounds.
May	Theory Exam and semester Break

Name of Class:	M.Sc.I & III semester
	Paper II & Paper III ,II
Paper: Unit::	Unit - II & IV,II
Name of Instructor:	Dr. Priyanka Parashar

Month	Syllabus	
July	Stereochemistry. Chirality, elements of symmetry, molecules with more than one chiral center, threo and erythro isomers.  Introduction Pericyclic reactions. Woodward-Hoffmann correlation diagrams. FMO and PMO approach.	
August	R and S configuration. Separation of enantiomers. Regioselective, stereospecific and stereoselectiverections.  Molecular orbitals and their symmetry. Molecular orbitals of ethylene,	
September	Asymmetric synthesis. Optical activity in the absence of chiral carbon (atropisomerism)-biphenyls, allenes and spiranes, and their nomenclature.  1,3- butadiene, 1,3,5-hexatriene and allyl system, and their symmetry properties.	
October	Effect of conformation on reactivity.  Characteristics and classification. Electrocyclic reactions: conrotatory and disrotatory motions, 4n,	
November	Conformational analysis of cyclohexanes and decalins.  4n+2 and allyl systems.	
December	Theory Exam and semester Break	

	Dr. Priyanka Parashar
Ciass . D.	Plan For the Session 2022-2023 Sc. Part III
Paper : In	organic Chemistry
Month	Topic -Bridge Course
July	1. Hard and Soft Acids and Bases (HSAB) Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
September	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> <li>Metal Lignad Bonding in Transition Metal Complexes.</li> <li>Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.</li> </ol>
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December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	<ul> <li>B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-methods. Properties. Bond nature and application; Organometallic compounds of Al, Preparation. Properties, Bond nature and applications.</li> <li>A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.</li> </ul>
February	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

	Dr Maneesha Jain
Teaching Class: B Paper: I	Plan For the Session 2022-2023 Se. Part I
Month	Tople
July	Bridge Classes
August	Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.
September	
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.
Vovember	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.
ecember	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.
	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy- Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts.  UV spectra of conjugated polyenes and enones.
	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.

graduation in the special research	Dr Manosha Jalo
Class ? B.	Plan For the Session 2022-2023 So Part III lorganic Chemistry Topic
July	<ol> <li>Hard and Soft Acids and Bases (HSAII)         Introduction: Classification of hard and soft acid-base, Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.     </li> </ol>
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December	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
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	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	M.Sc. III semester
Paper:	PAPER II: Organic Chemistry
Unit:	Unit - II
Name of Teacher:	Dr. Maneesha Jain

Month	Syllabus
August	Photochemistry: Part I. Photochemical Reactions. Interaction of electromagnetic radiation with matter
September	, types of excitations, fate of excited molecule, quantum yield.  Photochemistry of Carbonyl Compounds. Norrish type I and type II reactions;
October	$\alpha$ -cleavage of cyclic and acyclic, $\beta$ , $\gamma$ - unsaturated and $\alpha$ , $\beta$ -unsaturated compounds Dimerisation, and the Patterno-Büchi reaction.
November	Rearrangement of dienones. Photoreduction.
December	Theory Exam and semester Break

Name of Class:	M.Sc. III semester
Paper:	PAPER III: Physical/Solid State Chemistry
	Elective Paper IV: Analytical Chemistry
Unit:	Unit - IV and IV
Name of Teacher:	Dr. Maneesha Jain

Month	Syllabus
August	Crystal Defects. Perfect and imperfect crystals, stoichiometric and mon- stoichiometric defects.  Atomic Absorption Spectrometry. Principle. Instrumentation. Flame atomization.
September	Intrinsic and extrinsic defects, point defects, line and plane defects; Hollow-cathode lamps. Inductively coupled plasma-mass spectrometry.
October	Schottky and Frenkel defects.  Solid State Reactions. General principles, Electrolytic Methods. Fundamentals of the techniques: Voltammet Polarography.
November	coprecipitation as a precursor to solid state reactions, factors affecting solid streactions.  Differential pulse polarography. Cyclic voltammetry. Anodic stripping analysis.
December	

Mame of Class:	MSE IV Semester
Paper:	(Elective Paper V): Chemistry of Natural Products
Unit:	The second secon
Control of the contro	Dr. Manesha Jain

Month	Syllabus
January	Terpenaids. General methods of structure elucidation. Isoprene rule. Structure Steroids. Structure elucidation, stereochemistry and chemical synthesis of cholesterol.
Febrauary	determination, stereochemistry, and synthesis of the following representative molecules: citral, stereochemistry and chemical synthesis of bile acids, androsterone,
	stereochemistry, and synthesis of the geraniol, α-terpineol, menthol, α-pinene,
March	stereochemistry and chemical synthesis of testosterone, estrone, progestrone and aldosterone.
March April	

	Dr Nisha Singh
Teaching	Plan For the Session 2022-2023
Class: B.: Paper: Pa	
Month	Topic
July	Mathematics for Chemists Straight line equation, Logarithmic relations, curve sketching
August	graphs & calculation of slopes. Differentiation, differentiation of functions like $k_x$ , $e^x$ , $x^n$ , sinx, logx, maxima & minima, partial differentiation. Integration of some useful relevant functions.
September	Basic Analytical Chemistry: Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures, statistical terms: mean, mean deviation, median, standard deviation, Numerical Problems.
October	Calculations used in Analytical Chemistry Some Important units of measurements- SI Units, distinction between mass and weight, mole, milli mole and Numerical Problems.
lovember	Solution and their concentrations-Concept of Molarity, molality and normality. Expressing the concentration in parts per million (ppm), parts per billion (ppb), Numerical Problems.
ecember	Chemical Stoichiometry- Empirical and Molecular Formulas, Stoichiometric Calculations, Numerical Problems.
nuary	Computer for Chemists Introduction to computer, Introduction to operating systems like -DOS. Windows, Linux and Ubuntu.
bruary	Use of computer programs Running of standard programs & packages such as MS-word, MS-excel, PowerPoint, Execution of linear regression x-y Plot. Use of softwares for drawing structures and molecular formulae.

Name of Class:	M.Sc. II semester
Paper:	Paper II (Organic Chemistry)
Unit:	Unit- V
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Bridge course
August	Ultraviolet and Visible Spectroscopy. Electromagnetic radiation, wavelength, wave number,
September	frequency, and energy calculation. Electronic transitions (185-800 nm),  Beer-Lambert law, effect of solvent on electronic transitions
October	Fieser-Woodward rules for conjugated dienes and carbonyl compounds.
November	Optical Rotatory Dispersion (ORD) and Circular Dichroism (CD).  Concept of ORD and CD, deduction of absolute configuration, octant
	rule for ketones.

Name of Class:	M.Sc. II Semester
Paper:	Paper II & IV (Organic Chemistry & Spectroscopy & Diffraction)
Unit:	Unit- III & I
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
January	Addition to Carbon-Carbon Multiple Bonds. Mechanistic and stereochemical aspects of addition reactions.  Photoelectron Spectroscopy. Basic principles; photo-electric effect, ionization process, Koopman's theorem. Photoelectron spectra of simple molecules,
February	Hydroboration. Michael reaction. Sharpless asymmetric epoxidation.  Addition to Carbon-Hetero atom Multiple Bonds.  ESCA, chemical information from ESCA. Auger electron spectroscopy - basic idea.
March	Mechanism of metal hydride reduction of carbonyl compounds, acids esters and nitriles. Wittig reaction.  Mechanism of condensation reactions involving enolates.  Photoacoustic Spectroscopy. Basic principles of photoacoustic spectroscopy (PAS),
April	Mannich, Benzoin, Perkin, and Stobbe reactions chemical and surface applications.
[ay	Theory exam and semester break

#### 2022-23

Name of Class:	M.Sc. IV semester
Paper:	Elective Paper I & IV (Inorganic Chemistry & Polymer Chemistry )
Unit:	Unit- II & III
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
January	Basic principles, spectral parameters and spectrum display. Application of the technique to the studies of (1) bonding and structures of Fe <sup>+2</sup> and Fe <sup>+3</sup> compounds including those of intermediate spin,
February	(2) Sn <sup>+2</sup> and Sn <sup>+4</sup> compounds -nature of M-L bond, coordination number, structure and (3) detection of oxidation state.
March	Structure and Properties. Configuration of polymer chains. Crystal structure of polymers. Morphology of crystalline polymers. Polymer structure and physical properties; crystalline melting point Tm, melting points of homogeneous series,
April	effect of chain flexibility and other steric factors, entropy and heat of fusion. The glass transition temperature, Tg relationship between Tm and Tg, effects of molecular weight, diluents, chemical structure, chain topology, branching and cross linking. Property requirements and polymer utilization, CCE exam.
ay	Theory exam and semester break

Set - Austral

Name of Class:	M.Sc. I semester
Paper:	Paper II (Organic Chemistry)
Unit:	Unit- V
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Ultraviolet and Visible Spectroscopy. Electromagnetic radiation, wavelength, wave number,
August	Frequency, and energy calculation. Electronic transitions (185-800 nm), Beer-Lambert law, effect of solvent on electronic transitions
September	Fieser-Woodward rules for conjugated dienes and carbonyl compounds.
October	Optical Rotatory Dispersion (ORD) and Circular Dichroism (CD)  Concept of ORD and CD
November	Deduction of absolute configuration, octant rule for ketones. CCE
YOVEINDEL	

Name of Class:	M.Sc. III semester
Paper:	Paper IV (Photochemistry)
Unit:	Unit- IV
Name of Instructor:	Dr. Nisha Singh

Month	Syllabus
July	Bridge course
August	Photochemistry of Carbonyl Compounds. Intramolecular reactions of carbonyl compounds-saturated, cyclic and acyclic,
September	Unsaturated and α,β-unsaturated compounds
October	Cyclohexadienones. Intermolecular cyloaddition reactions
November	Dimerisations and oxetane formation, CCE exam
December	Theory exam and theory Exam

Dr Seema Rani		
Teaching I Class: B.S	Plan For the Session 2022-2023	
Paper : Pa	per I	
Month	Topic	
July	Mathematics for Chemists Straight line equation, Logarithmic relations, curve sketching	
August	graphs & calculation of slopes. Differentiation, differentiation of functions like $k_x e^x, x^n$ . sinx, logx, maxima & minima, partial differentiation. Integration of some useful relevant functions.	
September	Basic Analytical Chemistry: Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results. from the point of view of significant figures, statistical terms: mean, mean deviation, median, standard deviation, Numerical Problems.	
October	Calculations used in Analytical Chemistry Some Important units of measurements- SI Units, distinction between mass and weight, mole, milli mole and Numerical Problems.	
November	Solution and their concentrations-Concept of Molarity, molality and normality. Expressing the concentration in parts per million (ppm), parts per billion (ppb), Numerical Problems.	
December	Chemical Stoichiometry- Empirical and Molecular Formulas, Stoichiometric Calculations, Numerical Problems.	
January	Computer for Chemists Introduction to computer, Introduction to operating systems like -DOS Windows, Linux and Ubuntu.	
February	Use of computer programs Running of standard programs & packages such as MS-word, MS-excel PowerPoint, Execution of linear regression x-y Plot. Use of softwares for drawing structures and molecular formulae.	

	Dr Seema Rani
Class	ing Plan For the Session 2022-2023 : B.Sc. Part III : Physical Chemistry
Montl	
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO-H <sub>2</sub> ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of σ, σ*,π π*orbitals and their characters. Hybrid orbitals-sp.sp², sp³: calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of H <sub>2</sub> ion, comparison of M.O. and V.B. models.
Septemb	Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom.  Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Rama spectra of diatomic molecules, selection rules.  Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

Name of Class:	M.Sc.I & III semester	
Paper:	Paper III & Paper IV	
Unit::	Unit - V & II	
Name of Instructor:	Dr. Seema Rani	

Month	Syllabus
July	Dynamic chain Reactions (hydrogen-bromine reaction)  Chromatography. Theory of Chromatography. Retention time. Capacity factor.  Number of theoretical plates, and plate height.
	pyrolysis of acetaldehyde, decomposition of ethane
August	Band broadening. vanDeemter equation. Column resolution.  Gas Chromatography. Instrumentation. Columns. Detection: flame ionisation detector
	photochemical (hydrogen-bromine and hydrogen-chlorine reactions)
September	thermal conductivity detector and mass spectrometric detector.  High-Performance Liquid Chromatography. Instrumentation. Pumping systems.
	oscillatory reactions, homogeneous catalysis
October	Columns. Detection: UV-Vis detector, photodiode array detector, fluorescendetector, refractive index detector and mass spectrometric detection.
	kinetics of enzyme reactions
November	Capillary Electrophoresis. Principle, modes of operation, and instrumentation.
December	Theory Exam and semester Break

Name of Class:	M.Sc. II	
Paper:	Paper III & IV	
Unit:	Unit - IV & III	
Name of Instructctor:	Dr. Seema Rani	
Date:		

Month	Syllabus
January	Macromolecules and Colloids. Polymers, types of polymers, kinetics of polymerization,;
	Electron Diffraction. Scattering intensity vs. scattering angle, Wierl equation,
February	mechanism of polymerization reactions. Molecular mass of macromolecues, number and mass average molecular mass
	measurement technique, elucidation of structure of simple gas phase molecules. Low energy electron diffraction and structure of surfaces.
	molecular mass determination (osmometry, viscometry, diffusion and light
March	scattering methods), sedimentation, chain structures and their configuration.
March	Neutron Diffraction. Scattering of neutrons by solids and liquids, magnetic scattering, measurement techniques.
March April	scattering methods), sedimentation, chain structures and their configuration.
	Neutron Diffraction. Scattering of neutrons by solids and liquids, magnetic scattering, measurement techniques.  Emulsions. Theories of emulsification, coagulation, slow and rapid coagulation.

	Dr Kalpana Gupta
Teaching Class; B.S Paper : Pa	
Month	Topis
July	(i) Chemical techniques in ancient India: General Introduction (ii) Contribution of ancient Indian scientists in chemistry e.g., metallurgy, dyes, pigments, cosmetics, Ayurveda, Charak Sanhita.
August	<ul> <li>(i) Review of Bohr's theory and its limitations. Atomic spectrum of Hydrogen. Dual nature of articles and waves, de Broglie's equation, Heisenberg 's Uncertainty principle and its significance.</li> <li>(ii) Quantum numbers and their significance. Rules for filling electrons in various orbitals, Pauli's Exclusion Principle, Hund's rule of maximum multiplicity, Aufbau principle and its limitations, Variation of orbital energy with atomic number.</li> </ul>
September	Electronic configurations of the atoms. Stability of half-filled and completely filled orbitals, concept of exchange energy. Relative energies of atomic orbitals, Anomalous electronic configurations.
October	<ul> <li>(i) Effective nuclear number (EAN), shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.</li> <li>(ii) Atomic radii (van der Waals) Ionic and crystal radii.</li> <li>(iii) Covalent radii (octahedral and tetrahedral) Detailed discussion of the following properties of the elements, with reference to s &amp; p-blocks.</li> </ul>
November	<ul> <li>(iv) Ionization energy- Successive ionization energy and factors affecting ionization energy. Applications of ionization energy.</li> <li>(v) Electronegativity- Pauling's/ Mulliken's electronegativity scales. Variation of electronegativity with bond order, partial charge, hybridization.</li> </ul>
December	(i) Ionic Bonding: General characteristics of ionic bonding. Ionic bonding & Energy: lattice & solvation energies and their importance in the context of stability and solubility of ionic compounds. Statement of Born-Landé equation for calculation of lattice energy, Madelung constant, Born-Haber cycle and its applications. Covalent character in ionic compounds, polarizing power and polarizability. Fajan's rules.

January	(ii) Covalent bonding: Lewis's structure, Valence Bond theory (Heitler London approach).
	Hybridization- Concept, types (sp, sp <sup>2</sup> , sp <sup>3</sup> , dsp <sup>3</sup> , sp <sup>3</sup> d d <sup>2</sup> sp <sup>3</sup> , sp <sup>3</sup> d <sup>2</sup> )with suitable examples of inorganic and organic molecules
	Ionic character in covalent compounds- dipole moment and percentage Ionic character.
	Valence shell electron pair repulsion theory (VSEPR) theory: Assumptions, need of theory, application of theory to explain geometries or shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements such as: NH <sub>3</sub> , H <sub>2</sub> O, SF <sub>4</sub> , CIF <sub>3</sub> , PCl <sub>5</sub> , SF <sub>6</sub> , CIF <sub>5</sub> , XeF <sub>2</sub> , XeF <sub>4</sub> , XeF <sub>6</sub>
February	Molecular orbital (MO) concept of bonding The approximations of the theory, Linear combination of atomic orbitals (LCAO) (elementary pictorial approach) Rules for the LCAO method, bonding and antibonding MOs. Characteristics for s-s, s-p and p-p combinations of atomic orbitals, nonbonding combination of orbitals.  MO diagrams of homonuclear diatomic molecules: H <sub>2</sub> , Li <sub>2</sub> , Be <sub>2</sub> , B <sub>2</sub> , C <sub>2</sub> .
	N <sub>2</sub> , O <sub>2</sub> , F <sub>2</sub> , and their ions.  Molecular orbitals of heteronuclear diatomic molecules: CO, NO, CN,  HF, Bond parameters:  Definition and factors affecting - bond orders, bond lengths, bond angles.

Name of Class:	M.Sc. I semester
Paper:	Paper II Inorganic Chemistry
Unit:	Unit - IV And V
Name of Teacher:	Dr. Kalpana Gupta

Month	Syllabus
July	Bridge Course
August	Metal π-Complexes. Metal carbonyls: structure and bonding,  Borane Chemistry Metal Clusters. Bonding and topology of boranes, 4-digit coding (s, t, y, x)
September	vibrational spectra of metal carbonyls for bonding and structural elucidation numbers for B <sub>2</sub> H <sub>6</sub> , B <sub>4</sub> H <sub>10</sub> , B <sub>5</sub> H <sub>9</sub> , B <sub>5</sub> H <sub>11</sub> and B <sub>6</sub> H <sub>10</sub> and their utilities.
October	. Dioxygen complexes, Structure and preparation, Properties Acquaintance with carboranes and metallocarboranes.
November	Wilkinson's catalyst,. Mechanism and applications Metal clusters: synthesis, reactivity and bonding.
December	Theory Exam and semester Break

	Dr. B. K. Singh
Class 1 B.S	rian For the Session 2022-2023 e. III year ysical Chemistry
Month	Topie
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO-H <sub>2</sub> ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of σ, σ*,π π*orbitals and their characters. Hybrid orbitals-sp.sp², sp³: calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of H <sub>2</sub> ion, comparison of M.O. and V.B. models.
September	Spectroscopy: Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom. Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
November	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules. Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
December	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application to organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ , $\beta$ unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

# Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II
	A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions.  B Organo sulphur compounds.
	B Organo sulphur compounds.  Nomenclature, structural characteristics.  Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods o preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose Mechanism of mutarotation. Structure of ribose and deoxyribose. Disaccharides introductory idea of maltose, sucrose, and lactose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glyceride Hydrogenation of unsaturated oil, saponification value, iodine value and acivalue. Synthetic Detergents:- Alkyl and aryl sulphonate.
	Unit - IV  A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acid structure and stereo chemistry. Acid base behavior, Isoelectric point ar

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide. Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methylorange, Congored, Malachite green, crystal violet, Phenophthalein, Pluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit - V Introduction of pyrrole, furan, thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reactions with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridine, piperidine and pyrrole.
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compounds. Indole, Quinoline and isoquinoline-preparations and chemical properties (Fischer-Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis). Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. III semester
Paper:	Paper II Organic and Elective Paper (Photochemistry)
Unit:	Unit - II and V
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus	
July	Photochemistry Part I, Interciation of electromagnetic radiation with matter, Types of excitation. Fate of excited molecule, Quantum yield.	
August	Photochemistry of Carbonyl compounds, Norrish Type I and Norrish Type II reaction, α-Cleavage of Cyclic and acyclic compounds, 2 B unsaturated and Y- unsatpuration compounds, dimensation	
September	Photo fries reaction of Annilide, Barton reaction , singlet molecule oxygen Reaction , Patterno- buchi Reaction	
October	Photo fries reaction of Polymers, Photochemical formation of Smog, Photoreduction	
November	Rearrangement of dienones, Photochemistry of vision, Problems solving Classes, CCE, and practicals Exam	
December	Theory Exam and semester Break	

Name of Class:	M.Sc. VI semester
Paper:	Elective Paper (Polymer Chemistry)
Unit:	Unit - I and V
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus
January	Basics of Polymers. Repeating units, with Suitable examples and application of polymers, degree of polymerization Properties of polyethylene, polyvinyl chloride, polyamides, polyesters, phenolic resins, epoxy resins and silicone polymers
February	linear, branched and network polymers. Classification of polymers. Addition, radical, ionic, Functional polymers. Fire retarding polymers, and electrically conducting polymers.
March	coordination and condensation polymerisation; their mechanism and examples.  Biomedical polymers. contact lens, dental polymers, artificial heart, kidney, skir and blood cells.
April	Polymerisation conditions and polymer reactions. Polymerisation in homogeneous and heterogeneous systems.  Problems solving Classes, CCE, and practicals Exam
May	

	Dr Mridula Dubey
T 1 !	Plan For the Session 2022-2023
Class : B.	Sc. Part 1
Paper: Il Month	Topic
July	concept l
August	of chemical potentials of equilibrium. Temperature dependence of equilibrium. Temperature dependence of equilibrium. Le-Chatelier's Hoff reaction isochore, Van't Hoff reaction isotherm.
September	Introduction, Principle and Classification. Mechanism of adsorption, partition & ion-exchange.  Development of chromatograms: frontal. elution and displacement
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography Chromatography of column and column selection, applications, (HPLC), types of column and column selection, applications, limitations.
November	Principle and Applications of .     Flash chromatography.     Ion-exchange chromatography and
December	Chiral chromatography.  Chiral chromatography.  Basics of absorption spectroscopy: Electromagnetic radiation,  Spectral range. Absorbance, Absorptivity, Molar Absorptivity,  Spectral range. Absorbance, Lambert-Beer Law and its  Fundamental Laws of Absorption, Lambert-Beer Law
anuary	limitations.  Constitution & working of photometer, spectrometer, colorimeter.
anua y	Ultraviolet (UV) absorption spectroscopy  Presentation and analysis of UV spectra, Types of electronic transitions.  Effect of conjugation. Concept of chromophore and auxochrome.  Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts.  UV spectra of conjugated polyenes and enones.
ebruary	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation characteristic absorption of various functional groups and interpretation

Name of Class:	M.Sc. III semester
Paper:	Photochemistry and Oganic chemistry
Unit::	Unit -III and III
Name of Teacher:	Dr. Mradula Dubey

Month	Syllabus	
	Bridge Course	
July	Photochemistry of Alkene Intramolecular reactions of the olefinic bond-	
August	geometrical isomerism, cyclisation reactions, rearrangement.	
September	Photochemistry of Aromatic Compounds. Isomerisations, additions and substitutions	
October	Photochemistry: Part II. Photochemistry of Alkenes. Geometrical isomerisation, dimerisation reactions, rearrangement of 1,4- and 1,5- dienes. Photooxidation.	
November	Photochemistry of Aromatic Compounds. Photo-Fries rearrangement photoisomerization. Barton reaction. Singlet molecular oxygen reactions.	
December	CCE Exam, Semester Examination	



	Dr. Shubha Sinha
Teaching Class: B Paper: C	Plan For the Session 2022-2023 Sc. II year
Month	Topic
July	Bridge Course
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak.  Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak.
September	Hingul, Murdad, Sharngakam.
October	<ol> <li>Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.</li> </ol>
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.
	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.
inuary	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral must detrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle heorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands

Name of Class:	M.Sc. I semester
Paper:	Paper I Inorganic Chemistry
Unit::	Unit - I and III
Name of Teacher:	Dr. Shubha Sinha

Month	Syllabus		
July	Bridge Course		
August	Reaction Mechanism of Transition Metal Complexes. Inert and labile complexes, Metal-Ligand Bonding. Molecular orbital theory. Qualitative aspects of metal-ligand σ-bonding in octahedral, tetrahedral and square planar complexes.		
September	interpretation of lability and inertness of transition metal complexes on the basis of valence bond theory,  Jahn-Teller Effect  Electronic Spectra of Transition Metal Complexes. Spectroscopic term, terms and microstates for the p <sup>2</sup> and d <sup>2</sup> configurations		
October	Crystal field theories. Kinetics of octahedral substitution: Hund's rules for ground state terms, the correlation of spectroscopic terms into Mulliken symbols, electronic transition selection rules,		
November	Acid hydrolysis, factors affecting acid hydrolysis Orgel diagrams for transition metal complexes (d¹-d9 states).  Jahn-teller effect and electronic spectra of complexes.		
December	Theory Exam and semester Break		

Name of Class:	M.Sc. II semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and III
Name of Teacher:	Dr. Shubha Sinha

Month	Syllabus	
January	Metal-Ligand Equilibria in Solution. Stepwise and overall formation constants and their relationship, trends in stepwise constants,  Metal-Ligand Bonding. Molecular orbital theory: Qualitative aspect of metal-ligand π-bonding in octahedral complexes, tetrahedral and square planar complexes	
February	factors affecting the stability of metal complexes with reference to the nature of metal ion and ligand, Electronic Spectra and Magnetic Properties of Transition Metal Complexes. Calculations of Dq, B and β parameters for Cr(III),	
March	chelate effect and its thermodynamic origin, determination of binary formation constants by Bjerrum method,  Co(II) and Ni(II) complexes using electronic spectral data.	
April	Job's and Mole ratio methods. Charge transfer spectra: ligand to metal and metal to ligand.	
May	Practical Exam	

SE SERVE	Dr. Nalini Mishra	
Teaching Class: B.	Teaching Plan For the Session 2022-2023 Class: B.Sc. II year	
Month	Topic	
August	Substitution reactions Aliphatic Nucleophilic Substitution: Introduction, the S <sub>N</sub> 1, S <sub>N</sub> 2 and S <sub>N</sub> i mechanisms, neighbouring group participation, effect of substrate, nucleophile, leaving group and reaction medium.	
September	Aliphatic Electrophilic Substitution: Elementary treatment.  Aromatic Nucleophilic Substitution: the S <sub>N</sub> Ar, S <sub>N</sub> I and Benzyne mechanisms, effect of substrate, nucleophile, leaving group and Reaction medium.	
October	Aromatic Electrophilic Substitution: Arenium ion mechanism, orientation/directive influence (electronic explanation only) and reactivity, diazonium coupling, Vilsmeir reaction.  Keywords/Tags: Nucleophilic Substitution, Electrophilic Substitution, Benzyne, S <sub>N</sub> 1, S <sub>N</sub> 2, S <sub>N</sub> i, S <sub>N</sub> Ar.p	
November	Reagents. Catalysts and Rearrangements (Mechanisms and Applications) Reagents and Catalysts: Preparation properties and applications of important reagents and catalysts in organic synthesis with mechanistic details: Grignard reagent, N-bromo succinimide (NBS), diazomethane, anhydrous aluminium chloride (AICl <sub>3</sub> ), sodamide (NaNH <sub>2</sub> ), Ziegler Natta catalyst.	
	Rearrangements (Reaction, Mechanism & Applications): Introduction, Types of Rearrangements, Rearrangement to Electron Deficient Carbon (Pinacol-pinacolone, benzilic acid & Wagner-Meerwein), Rearrangement to Electron Deficient Nitrogen (Hofmann-Lossen-Curtius & Beckmann),	
nuary	Rearrangement to Electron Deficient Oxygen (Baeyer-Villiger & Dakin), Rearrangement to Electron-Rich Carbon (Wittig), Aromatic Rearrangements (Fries & Claisen).  Photochemical Photochemical reactions: Introduction to photochemistry, excitations, Jablonski diagram,	
bruary	Norrish type I and II reactions and cis-trans isomerization. Class Test	

Name of Class:	M.Sc. I semester
Paper:	Paper II (Organic chemistry)
Unit::	Unit - III
Name of Instructor:	Dr. Nalini Mishra

Month	Syllabus  Bridge Course	
July		
August	Reaction Mechanism. Types of mechanisms, types of reactions, thermodynamic and kinetic requirements, and control,	
September	Potential energy diagrams, transition states and intermediates, methods of determining mechanisms, isotope effects.	
October	Effect of structure on reactivity -resonance and field effects, steric effect. The Hammett equation and linear free energy relationship substituent and reaction constants.	
November	Taft equation. CCE Exam And Practical Exam	
December	Semester Examination	

#### Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Kiran Singh

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II  A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions. Organo sulphur compounds. Nomenclature, structural characteristics. Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods of preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose, Mechanism of mutarotation. Structure of ribose and deoxyribose. Disaccharides-introductory idea of maltose, sucrose, and lactose (Excluding structures). Polysaccharides-introductory idea of starch and cellulose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glycerides Hydrogenation of unsaturated oil, saponification value, iodine value and acid value. Synthetic Detergents:- Alkyl and aryl sulphonate.  Unit – IV A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acids structure and stereo chemistry. Acid base behavior, Isoelectric point an

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide.  Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methyl orange, Congored, Malachite green, crystal violet, Phenophthalein, Fluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit – V
	Introduction of pyrrole, furan, thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reaction with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridin piperidine and pyrrole.
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compound Indole, Quinoline and isoquinoline-preparations and chemical properties (Fisch Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. IV semester
Paper:	Paper II (organic Chemistry)
Unit::	Unit - II and III
Name of Instructor:	Dr. Kiran Singh

Month	Syllabus	
January	Mass Spectrometry-Part I. Ion production, electron ionisation (EI), chemical ionisation (CI), field desorption (FD), field ionisation (FI), and fast atom bombardment (FAB). Atmospheric pressure ionisation techniques. Electrospray ionisation, and atmospheric pressure chemical ionisation.	
February	Thermosprayionisation. Matrix assisted laser desorption ionisation (MALDI) Mass analysers. Magnetic sector analysers. Quadrupolaranalysers, ion trap, time-of-flight (TOF), Ion cyclotron resonance (ICR). Electron multiplier. Tandem mass spectrometry (MS/MS).	
March	Mass Spectrometry-Part II. Isotopic abundance. Electron ionisation and fragmentation (positive ions). Molecular ion peak, metastable peak. McLafferty rearrangement. Nitrogen rule. Parity rule. Mass spectral fragmentation of organic compounds containing common functional groups (alkanes, alkenes, alkynes, halocompounds, alcohols, amines, carbonyl compounds,	
April	aromatic compounds).  High resolution mass spectrometery. Interpretation of mass spectra. Problems based on mass spectrometry of organic compounds	
May	. CCE exam and Practical Exam	

Name of Class:	M.Sc. III semester
Paper:	Paper I (Photochemistry)
Unit::	Unit - I and II
Name of Teacher:	Dr. Kiran Singh

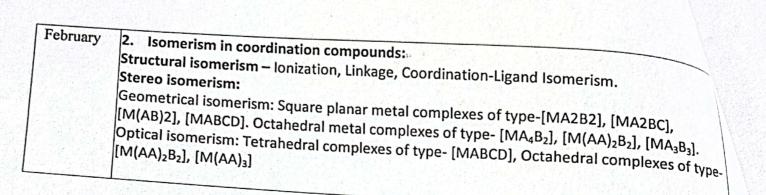
Month	Syllabus
	Bridge Course
July	district with matter.
August	Photochemical Reactions. Interaction of electromagnetic radiation with matter, types of excitations,
August	fate of excited molecule, quantum yield, transfer of excitation energy, actinometry.
September	Determination of Reaction Mechanism. Classification, rate constants and life
October	determination of rate constants of reactions. Effect of light intensity on the rate of photochemical reactions.
	Types of photochemical reactions-photo dissociation, gas-phase photolysis.
November	
December	CCE Exam, Semester Examination

	Dr. Archana Khare
Clas	ching Plan For the Session 2022-2023 s: B.Sc. I year er: II
Mon	
July	Bridge Classes
August  Chemical Equilibrium: Equilibrium constant and free energy, confidence of chemical potential. Thermodynamic derivation of law of che equilibrium. Temperature dependence of equilibrium constant; Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chaprinciple and its applications.	
Septemi	Chromatography Introduction, Principle and Classification. Mechanism of separation: adsorption, partition & ion-exchange. Development of chromatograms: frontal, elution and displacement methods.
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.
November	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.
December	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.
anuary	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy-
	Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts. UV spectra of conjugated polyenes and enones.
N   p   c	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, haracteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.

Name of Class:	M.Sc. I semester
Paper:	Paper II Organic Chemistry
Unit:	Unit - I and IV
Name of Teacher:	Dr. Archana Khare

Month	Syllabus	
	Bridge Course.	
July	i alegales Delocalized	
August	Structure and Bonding. Bonding in organic molecules. Delocalized chemical bonding-conjugation, cross conjugation, Conjugation, resonance, hyperconjugation.  Aliphatic Nucleophilic Substitution. The S <sub>N</sub> 2, S <sub>N</sub> 1, mixed S <sub>N</sub> 2 and S <sub>N</sub> 1, and SET mechanisms. The S <sub>N</sub> i mechanism. Reactivity effects of substrate structure, attacking nucleophile,	
September	Aromaticity in benzenoid and non-benzenoid compounds, alternate a non-alternate hydrocarbons. leaving group and reaction medium. The neighbouring group mechanism	
Octomber	Hückel rule, anti-aromaticity, homo-aromaticity.  Hückel rule, anti-aromaticity, homo-aromaticity.  neighbouring group participation by π and σ bonds. Classical and nonclassical carbocations,	
November	Bonds weaker than covalent bond. Hydrogen contains, complexes, and cyclodextrin norbornyl system, carbocation rearrangements.	
December	Theory Exam and semester Break	

	Dr. Manju Gupta	
Class 1	ng Plan For the Bession 2022-2023 D.Sc. 11 year Chemistry	
July	Topic =	
August	Uridge Course	
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works; Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory Idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Valkrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.	
Septembe	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to from Complexes	
October	<ol> <li>Chemistry of Inner Transition elements: Lanthanides and Actinides General group tren with special reference to Electronic Configuration, Oxidation States, Colour, Spectral an Magnetic properties.</li> </ol>	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.	
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.	
	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle heorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands	



Name of Class:	M.Sc. I semester
Paper:	Paper - I
Unit::	Unit - I
Name of Teacher:	Dr. Manju Gupta

Month	Syllabus	
	Bridge Course	
July		
August	Stereochemistry and Bonding in Main Group Compounds. VSEPR theory and its application for treating	
September	structures of inorganic molecules and ions containing lone pairs of electrons, shortcomings of VSEPR model.	
October	MO treatment of polyatomic molecules, e.g., ozone, nitrite, nitrate, hydarzoic acid and benzene.  Bent's Rule,	
November	Walsh diagram (triatomic molecules – BeH <sub>2</sub> , H <sub>2</sub> O), d <sub>π</sub> - p <sub>π</sub> bonds (thiazyltrifuoride – NSF <sub>3</sub> )	
December	CCE Exam, Semester Examination	

Name of Class:	M.Sc. III semester
	Paper - I
Paper: Unit : :	Unit - V
Name of Teacher:	Dr. Manju Gupta

Month	Syllabus	
	Bridge Course	
July	Transport and Storage of Dioxygen: structure and function of hemoglobin,	
August	Structure and function of myoglobin, hemocyanins and hemerythrin.	
September	Poisoning towards hemoglobin	
October	myoglobin	
November		
December	CCE Exam, Semester Examination	

	Dr. Leena Rai
Teaching Class : B Paper :	
Month	Topic
August	Addition and Elimination Reactions  Addition Reactions: Introduction, reactions involving addition of nucleophile, electrophile and free radicals, regio-selectivity and chemo-selectivity, orientation and reactivity, Markovníkov and AntiMarkovníkov's addition.
September	Elimination Reactions: Introduction, E1, E2 and E1cB mechanisms; effect of substrate, attacking species, leaving group and reaction. medium, orientation-Saytzeff and Hofmann rule.
October	Oxidation & Reduction Reactions Oxidation Reactions: Introduction, metal based and non-metal based oxidations, oxidation of alcohols to carbonyls (chromium, manganese, and silver based reagents), alkenes to epoxides (peroxides / peracids based, alkenes to diols (manganese and osmium based), alkenes to carbonyls with bond cleavage (manganese and lead based), Oppenauer oxidation.
	Oxidation of amino groups to nitro groups: oxidation by alkaline KMnO <sub>4</sub> , oxidation of aliphatic and aromatic amines by peracids, oxidation of primary and secondary amines to hydroxyl amine by hydrogen peroxide.  Reduction Reactions: Introduction, Reduction of carbon-carbon multiple bonds, carbonyl groups and nitro compounds: catalytic hydrogenation: heterogeneous (Palladium-carbon & Raney Nickel), homogeneous (Wilkinson's catalyst)
	Hydride transfer reagents: Sodium borohydride and Lithium aluminium hydride, Metal based reductions: Birch reduction, Clemmensen Reduction. Reduction of nitro compounds by catalytic hydrogenation and Metals (with mechanism)
	Pericyclic reactions: Introduction of pericyclic reaction and their classification (Electrocyclic, Sigmatropic rearrangement and cycloadditions), 2+2 and 4+2 cycloaddition,
ebruary	Claisen and Cope rearrangement.
	Class Test

	Dr. Leena Rai	
Teaching Plan For the Session 2021-2022 Class: B.Sc. II Year Paper: Chemistry Topic		
Month	Topic Topic	
July	Thermodynamics  1. First law of Thermodynamics  Concept of heat (Q), work (W), internal energy (U), Statement of first law, Enthalpy (H), Relation between heat capacities. Calculations of Q, W, $\Delta U$ and $\Delta H$ under isothermal and adiabatic conditions for Reversible, Irreversible and Free (ideal and van der Waals) expansions of gases.  Joule Thomson effect and its theory, Inversion temperature.	
August	2. Second law of Thermodynamics Carnot cycle, Statement of the Second law of Thermodynamics. Concept of Entropy, Calculation of entropy change for Reversible and irreversible processes, Concept of residual entropy, Free Energy Functions: Gibbs and Helmholtz energy. Variation of entropy (S),	
September	Gibbs free energy (G), work function (A) with temperature (T), volume (V) and pressure (P). Free energy change and spontaneity,. Gibbs- Helmholtz equation.  3. Thirdlaw of Thermodynamics Nerst heat theorem and its significance, Statement of third law, Calculation of absolute entropy of substance.	
	Electrochemistry Electrical Conduction: Conduction in metals and in electrolyte solutions, Specific, equivalent and molar conductivity. Measurement of equivalent conductance. Effect of dilution on conductivity. Migration of ions. Kohlrausch law and its applications.	
October	Weak and strong electrolytes: Theory of strong electrolytes, Debye-Huckel-Onsager (BHO) theory and equation.  Transport numbers: Determination of transport numbers by Hittorf method and Moving boundary method.  Electrode reactions: Nernst equation, Derivation of equation for single electrode potential.	
ovember	Electrodes: Reference electrodes, Standard hydrogen electrodes, Quinhydrone electrode, Glass electrode, Calomel electrode. Standard electrode potential. Electrochemical series and its applications. Electrochemical cells: Nernst equation, calculation of e.m.f. of cell	

December	Phase equilibrium
	Concept of phases. Components and degrees of freedom. Thermodynamic derivation of
	Gibbs Phase Rule for reactive and nonreactive systems.
	Clausius- Clapeyron equation and its applications to Solid-Liquid, Liquid-Vapour and Solid-Vapour equilibria
January	
erie vippritri: Wezertsbifcs	Phase diagram for one component systems with applications- Water and Sulphur. Phase diagrams for systems of solid-liquid equilibria involving — Eutectic, Congruent and
A Comment of the second second	Incongruent melting points. Water and Sulfur system, Ag-Pb and Mg-Zn system, NaCl-H <sub>2</sub> O system.
ebruary	
ebruary	Binary solutions: Raoult's Law, Ideal and Non-ideal or Azeotropic mixtures, immiscible liquids, Steam distillation.

a ili amendija, bitod imela vaton vojetarina a eleiki girvita levol tatan ili alema. Moga viltodisod po lato sasirtizasi akok alemiko kontantiki girvita arenda.

Name of Class:	M.Sc. I semester
Paper:	Paper IV (Spectroscopy)
Unit::	Unit - III
Name of Instructor:	Dr. Leena Rai

Month	Syllabus
	Bridge Course
July	
August	Infrared Spectroscopy. Review of linear harmonic oscillator, vibrational energies of diatomic molecules, zero point energy, force constant and bond strengths;
September	Anharmonicity, Morse potential energy diagram, vibration-rotation spectroscopy, P,Q,R branches. Vibrations of polyatomic molecules.
October	Selection rules, normal modes of vibration, group frequencies, overtones, hot bands,
November	factors affecting the band positions and intensities, far IR region.  CCE Exam
December	Semester Examination

Name of Class:	M.Sc. II semester
Paper:	Paper II (Inorganic Chemistry)
Unit::	Unit - V
Name of Instructor:	Dr. Leena Rai

Month	Syllabus
January	Group Theory. Symmetry elements and symmetry operations, symmetry groups or
February	point groups, Schoenflies symbols, point group classifications,
March	matrix representation of symmetry operations,
April	group, necessary conditions for any set of elements to form a group, subgroups classes in a group.
May	. CCE exam and Practical Exam

Name of Class:	M.Sc. III semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and II
Name of Instructor:	Dr. Leena Rai

Month	Syllabus
	Bridge Course
July	- Cooint groups
	Group theory. Matrix representation of point groups, Character of a representation, reducible and irreducible representations
August	and its importance, construction
September	. The great orthogonality theorem (without proof) and its importance, construction of character tables for C <sub>2v</sub> , and C <sub>3v</sub> point groups, importance of character tables.
October	Group theory and vibrational Spectroscopy. Group theory to symmetry, shapes and molecular energy level diagrams of molecules like BF <sub>3</sub> , NH <sub>3</sub> (AB <sub>3</sub> type), [Pt(NH <sub>3</sub> ) <sub>4</sub> ] <sup>2+</sup> , [Ni(CN) <sub>4</sub> ] <sup>2-</sup> (AB <sub>4</sub> type)
November	[Co(NH <sub>3</sub> ) <sub>6</sub> ] <sup>3+</sup> (AB <sub>6</sub> type) molecules. Modes of bonding of ligands such as SCN, p ketoenolate and related ligands, nitrate ion and corboxylates.
	Semester Examination
December	

Name of Class:	M.Sc. IV semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and III
Name of Instructor:	Dr. Leena Rai

Month	Syllabus
January	Electron Spin Resonance Spectroscopy. Basic principles, hyperfine and superhyperfinesplitting,
February	g value and factors affecting g values, applications to transition metal complexes.
March	Application of group theory to Spectroscopy. Use of group theory in predicting IR and Raman active modes in some simple molecules of C <sub>2v</sub> ,
April	$C_{3v}$ and $D_{\alpha h}$ point groups.
May	. CCE exam and Practical Exam

	Dr Kalpana Gupta
Teaching Class; B.S Paper : Pa	
Month	Topis
July	(i) Chemical techniques in ancient India: General Introduction (ii) Contribution of ancient Indian scientists in chemistry e.g., metallurgy, dyes, pigments, cosmetics, Ayurveda, Charak Sanhita.
August	<ul> <li>(i) Review of Bohr's theory and its limitations. Atomic spectrum of Hydrogen. Dual nature of articles and waves, de Broglie's equation, Heisenberg 's Uncertainty principle and its significance.</li> <li>(ii) Quantum numbers and their significance. Rules for filling electrons in various orbitals, Pauli's Exclusion Principle, Hund's rule of maximum multiplicity, Aufbau principle and its limitations, Variation of orbital energy with atomic number.</li> </ul>
September	Electronic configurations of the atoms. Stability of half-filled and completely filled orbitals, concept of exchange energy. Relative energies of atomic orbitals, Anomalous electronic configurations.
October	<ul> <li>(i) Effective nuclear number (EAN), shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.</li> <li>(ii) Atomic radii (van der Waals) Ionic and crystal radii.</li> <li>(iii) Covalent radii (octahedral and tetrahedral) Detailed discussion of the following properties of the elements, with reference to s &amp; p-blocks.</li> </ul>
November	<ul> <li>(iv) Ionization energy- Successive ionization energy and factors affecting ionization energy. Applications of ionization energy.</li> <li>(v) Electronegativity- Pauling's/ Mulliken's electronegativity scales. Variation of electronegativity with bond order, partial charge, hybridization.</li> </ul>
December	(i) Ionic Bonding: General characteristics of ionic bonding. Ionic bonding & Energy: lattice & solvation energies and their importance in the context of stability and solubility of ionic compounds. Statement of Born-Landé equation for calculation of lattice energy, Madelung constant, Born-Haber cycle and its applications. Covalent character in ionic compounds, polarizing power and polarizability. Fajan's rules.

January	(ii) Covalent bonding: Lewis's structure, Valence Bond theory (Heitler London approach).
	Hybridization- Concept, types (sp, sp <sup>2</sup> , sp <sup>3</sup> , dsp <sup>3</sup> , sp <sup>3</sup> d d <sup>2</sup> sp <sup>3</sup> , sp <sup>3</sup> d <sup>2</sup> )with suitable examples of inorganic and organic molecules
	Ionic character in covalent compounds- dipole moment and percentage Ionic character.
	Valence shell electron pair repulsion theory (VSEPR) theory: Assumptions, need of theory, application of theory to explain geometries or shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements such as: NH <sub>3</sub> , H <sub>2</sub> O, SF <sub>4</sub> , CIF <sub>3</sub> , PCl <sub>5</sub> , SF <sub>6</sub> , CIF <sub>5</sub> , XeF <sub>2</sub> , XeF <sub>4</sub> , XeF <sub>6</sub>
February	Molecular orbital (MO) concept of bonding The approximations of the theory, Linear combination of atomic orbitals (LCAO) (elementary pictorial approach) Rules for the LCAO method, bonding and antibonding MOs. Characteristics for s-s, s-p and p-p combinations of atomic orbitals, nonbonding combination of orbitals.  MO diagrams of homonuclear diatomic molecules: H <sub>2</sub> , Li <sub>2</sub> , Be <sub>2</sub> , B <sub>2</sub> , C <sub>2</sub> .
	N <sub>2</sub> , O <sub>2</sub> , F <sub>2</sub> , and their ions.  Molecular orbitals of heteronuclear diatomic molecules: CO, NO, CN,  HF, Bond parameters:  Definition and factors affecting - bond orders, bond lengths, bond angles.

Name of Class:	M.Sc. I semester
Paper:	Paper II Inorganic Chemistry
Unit:	Unit - IV And V
Name of Teacher:	Dr. Kalpana Gupta

Month	Syllabus	
July	Bridge Course	
August	Metal π-Complexes. Metal carbonyls: structure and bonding,  Borane Chemistry Metal Clusters. Bonding and topology of boranes, 4-digit coding (s, t, y, x)	
September	vibrational spectra of metal carbonyls for bonding and structural elucidation numbers for B <sub>2</sub> H <sub>6</sub> , B <sub>4</sub> H <sub>10</sub> , B <sub>5</sub> H <sub>9</sub> , B <sub>5</sub> H <sub>11</sub> and B <sub>6</sub> H <sub>10</sub> and their utilities.	
October	. Dioxygen complexes, Structure and preparation, Properties Acquaintance with carboranes and metallocarboranes.	
November	Wilkinson's catalyst, Mechanism and applications Metal clusters: synthesis, reactivity and bonding.	
December	Theory Exam and semester Break	

	Dr. B. K. Singh
Class 1 B.S	rian For the Session 2022-2023 e. III year ysical Chemistry
Month	Topie
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO-H <sub>2</sub> ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of σ, σ*,π π*orbitals and their characters. Hybrid orbitals-sp.sp², sp³: calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of H <sub>2</sub> ion, comparison of M.O. and V.B. models.
September	Spectroscopy: Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom. Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
November	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules. Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
December	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application to organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ , $\beta$ unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

# Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II
	A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions.  B Organo sulphur compounds.
	B Organo sulphur compounds.  Nomenclature, structural characteristics.  Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods o preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose Mechanism of mutarotation. Structure of ribose and deoxyribose. Disaccharides introductory idea of maltose, sucrose, and lactose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glyceride Hydrogenation of unsaturated oil, saponification value, iodine value and acivalue. Synthetic Detergents:- Alkyl and aryl sulphonate.
	Unit - IV  A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acid structure and stereo chemistry. Acid base behavior, Isoelectric point ar

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide. Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methylorange, Congored, Malachite green, crystal violet, Phenophthalein, Pluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit - V Introduction of pyrrole, furan, thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reactions with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridine, piperidine and pyrrole.
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compounds. Indole, Quinoline and isoquinoline-preparations and chemical properties (Fischer-Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis). Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. III semester
Paper:	Paper II Organic and Elective Paper (Photochemistry)
Unit:	Unit - II and V
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus
July	Photochemistry Part I, Interciation of electromagnetic radiation with matter, Types of excitation. Fate of excited molecule, Quantum yield.
August	Photochemistry of Carbonyl compounds, Norrish Type I and Norrish Type II reaction, α-Cleavage of Cyclic and acyclic compounds, 2 B unsaturated and Y- unsatpuration compounds, dimensation
September	Photo fries reaction of Annilide, Barton reaction , singlet molecule oxygen Reaction , Patterno- buchi Reaction
October	Photo fries reaction of Polymers, Photochemical formation of Smog, Photoreduction
November	Rearrangement of dienones, Photochemistry of vision, Problems solving Classes, CCE, and practicals Exam
December	Theory Exam and semester Break

Name of Class:	M.Sc. VI semester
Paper:	Elective Paper (Polymer Chemistry)
Unit:	Unit - I and V
Name of Teacher:	Dr. Madhumati Jain

Month	Syllabus
January	Basics of Polymers. Repeating units, with Suitable examples and application of polymers, degree of polymerization Properties of polyethylene, polyvinyl chloride, polyamides, polyesters, phenolic resins, epoxy resins and silicone polymers
February	linear, branched and network polymers. Classification of polymers. Addition, radical, ionic, Functional polymers. Fire retarding polymers, and electrically conducting polymers.
March	coordination and condensation polymerisation; their mechanism and examples.  Biomedical polymers. contact lens, dental polymers, artificial heart, kidney, skir and blood cells.
April	Polymerisation conditions and polymer reactions. Polymerisation in homogeneous and heterogeneous systems.  Problems solving Classes, CCE, and practicals Exam
May	

	Dr Mridula Dubey
T 1 !	Plan For the Session 2022-2023
Class : B.	Sc. Part 1
Paper: Il Month	Topic
July	concept !
August	of chemical potentials of equilibrium. Temperature dependence of equilibrium. Temperature dependence of equilibrium. Le-Chatelier's Hoff reaction isochore, Van't Hoff reaction isotherm.
September	Introduction, Principle and Classification. Mechanism of adsorption, partition & ion-exchange.  Development of chromatograms: frontal. elution and displacement
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography Chromatography of column and column selection, applications, (HPLC), types of column and column selection, applications, limitations.
November	Principle and Applications of .     Flash chromatography.     Ion-exchange chromatography and
December	Chiral chromatography.  Chiral chromatography.  Basics of absorption spectroscopy: Electromagnetic radiation,  Spectral range. Absorbance, Absorptivity, Molar Absorptivity,  Spectral range. Absorbance, Lambert-Beer Law and its  Fundamental Laws of Absorption, Lambert-Beer Law
anuary	limitations.  Constitution & working of photometer, spectrometer, colorimeter.
anua y	Ultraviolet (UV) absorption spectroscopy  Presentation and analysis of UV spectra, Types of electronic transitions.  Effect of conjugation. Concept of chromophore and auxochrome.  Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts.  UV spectra of conjugated polyenes and enones.
ebruary	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation characteristic absorption of various functional groups and interpretation

Name of Class:	M.Sc. III semester
Paper:	Photochemistry and Oganic chemistry
Unit::	Unit -III and III
Name of Teacher:	Dr. Mradula Dubey

Month	Syllabus	
	Bridge Course	
July	Photochemistry of Alkene Intramolecular reactions of the olefinic bond-	
August	geometrical isomerism, cyclisation reactions, rearrangement.	
September	Photochemistry of Aromatic Compounds. Isomerisations, additions and substitutions	
October	Photochemistry: Part II. Photochemistry of Alkenes. Geometrical isomerisation, dimerisation reactions, rearrangement of 1,4- and 1,5- dienes. Photocoxidation.  Photochemistry of Aromatic Compounds. Photo-Fries rearrangement photoisomerization. Barton reaction. Singlet molecular oxygen reactions.	
November		
December	CCE Exam, Semester Examination	



	Dr. Shubha Sinha	
Class : B	Teaching Plan For the Session 2022-2023 Class: B.Sc. II year Paper: Chemistry	
Month	Topic	
July	Bridge Course	
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak.  Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak.	
September	Hingul, Murdad, Sharngakam.	
October	<ol> <li>Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.</li> </ol>	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.	
	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.	
inuary	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral must detrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle heorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands	

Name of Class:	M.Sc. I semester
Paper:	Paper I Inorganic Chemistry
Unit::	Unit - I and III
Name of Teacher:	Dr. Shubha Sinha

Month	Syllabus		
July	Bridge Course		
August	Reaction Mechanism of Transition Metal Complexes. Inert and labile complexes, Metal-Ligand Bonding. Molecular orbital theory. Qualitative aspects of metal-ligand σ-bonding in octahedral, tetrahedral and square planar complexes.		
September	interpretation of lability and inertness of transition metal complexes on the basis of valence bond theory, Jahn-Teller Effect Electronic Spectra of Transition Metal Complexes. Spectroscopic term, terms and microstates for the p <sup>2</sup> and d <sup>2</sup> configurations		
October	Crystal field theories. Kinetics of octahedral substitution: Hund's rules for ground state terms, the correlation of spectroscopic term into Mulliken symbols, electronic transition selection rules,		
November	Acid hydrolysis, factors affecting acid hydrolysis Orgel diagrams for transition metal complexes (d¹-d9 states).  Jahn-teller effect and electronic spectra of complexes.		
December	Theory Exam and semester Break		

Name of Class:	M.Sc. II semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and III
Name of Teacher:	Dr. Shubha Sinha

Month	Syllabus	
January	Metal-Ligand Equilibria in Solution. Stepwise and overall formation constants and their relationship, trends in stepwise constants,  Metal-Ligand Bonding. Molecular orbital theory: Qualitative aspect of metal-ligand π-bonding in octahedral complexes, tetrahedral and square planar complexes	
February	factors affecting the stability of metal complexes with reference to the nature of metal ion and ligand, Electronic Spectra and Magnetic Properties of Transition Metal Complexes. Calculations of Dq, B and β parameters for Cr(III),	
March	chelate effect and its thermodynamic origin, determination of binary formation constants by Bjerrum method,  Co(II) and Ni(II) complexes using electronic spectral data.	
April	Job's and Mole ratio methods. Charge transfer spectra: ligand to metal and metal to ligand.	
May	Practical Exam	

SE SERVE	Dr. Nalini Mishra		
Teaching Class: B.	Teaching Plan For the Session 2022-2023 Class: B.Sc. II year		
Month	Topic		
August	Substitution reactions Aliphatic Nucleophilic Substitution: Introduction, the S <sub>N</sub> 1, S <sub>N</sub> 2 and S <sub>N</sub> i mechanisms, neighbouring group participation, effect of substrate, nucleophile, leaving group and reaction medium.		
September	Aliphatic Electrophilic Substitution: Elementary treatment.  Aromatic Nucleophilic Substitution: the S <sub>N</sub> Ar, S <sub>N</sub> I and Benzyne mechanisms, effect of substrate, nucleophile, leaving group and Reaction medium.		
October	Aromatic Electrophilic Substitution: Arenium ion mechanism, orientation/directive influence (electronic explanation only) and reactivity, diazonium coupling, Vilsmeir reaction.  Keywords/Tags: Nucleophilic Substitution, Electrophilic Substitution, Benzyne, S <sub>N</sub> 1, S <sub>N</sub> 2, S <sub>N</sub> i, S <sub>N</sub> Ar.p		
November	Reagents. Catalysts and Rearrangements (Mechanisms and Applications) Reagents and Catalysts: Preparation properties and applications of important reagents and catalysts in organic synthesis with mechanistic details: Grignard reagent, N-bromo succinimide (NBS), diazomethane, anhydrous aluminium chloride (AICl <sub>3</sub> ), sodamide (NaNH <sub>2</sub> ), Ziegler Natta catalyst.		
	Rearrangements (Reaction, Mechanism & Applications): Introduction, Types of Rearrangements, Rearrangement to Electron Deficient Carbon (Pinacol-pinacolone, benzilic acid & Wagner-Meerwein), Rearrangement to Electron Deficient Nitrogen (Hofmann-Lossen-Curtius & Beckmann),		
nuary	Rearrangement to Electron Deficient Oxygen (Baeyer-Villiger & Dakin), Rearrangement to Electron-Rich Carbon (Wittig), Aromatic Rearrangements (Fries & Claisen).  Photochemical Photochemical reactions: Introduction to photochemistry, excitations, Jablonski diagram,		
bruary	Norrish type I and II reactions and cis-trans isomerization. Class Test		

Name of Class:	M.Sc. I semester
Paper:	Paper II (Organic chemistry)
Unit::	Unit - III
Name of Instructor:	Dr. Nalini Mishra

Month	Syllabus  Bridge Course		
July			
August	Reaction Mechanism. Types of mechanisms, types of reactions, thermodynamic and kinetic requirements, and control,		
September	Potential energy diagrams, transition states and intermediates, methods of determining mechanisms, isotope effects.		
October	Effect of structure on reactivity -resonance and field effects, steric effect. The Hammett equation and linear free energy relationship substituent and reaction constants.		
November	Taft equation. CCE Exam And Practical Exam		
December	Semester Examination		

#### Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Kiran Singh

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II  A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions. Organo sulphur compounds. Nomenclature, structural characteristics. Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods of preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose, Mechanism of mutarotation. Structure of ribose and deoxyribose. Disaccharides-introductory idea of maltose, sucrose, and lactose (Excluding structures). Polysaccharides-introductory idea of starch and cellulose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glycerides Hydrogenation of unsaturated oil, saponification value, iodine value and acid value. Synthetic Detergents:- Alkyl and aryl sulphonate.  Unit – IV A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acids structure and stereo chemistry. Acid base behavior, Isoelectric point an

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide.  Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methyl orange, Congored, Malachite green, crystal violet, Phenophthalein, Fluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit – V
	Introduction of pyrrole, furan, thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reaction with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridin piperidine and pyrrole.
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compound Indole, Quinoline and isoquinoline-preparations and chemical properties (Fisch Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. IV semester
Paper:	Paper II (organic Chemistry)
Unit::	Unit - II and III
Name of Instructor:	Dr. Kiran Singh

Month	th Syllabus	
January	Mass Spectrometry-Part I. Ion production, electron ionisation (EI), chemical ionisation (CI), field desorption (FD), field ionisation (FI), and fast atom bombardment (FAB). Atmospheric pressure ionisation techniques. Electrospray ionisation, and atmospheric pressure chemical ionisation.	
February	Thermosprayionisation. Matrix assisted laser desorption ionisation (MALDI). Mass analysers. Magnetic sector analysers. Quadrupolaranalysers, ion trap, time-of-flight (TOF), Ion cyclotron resonance (ICR). Electron multiplier. Tandem mass spectrometry (MS/MS).	
March	Mass Spectrometry-Part II. Isotopic abundance. Electron ionisation a fragmentation (positive ions). Molecular ion peak, metastable peak. McLaffe rearrangement. Nitrogen rule. Parity rule. Mass spectral fragmentation of orga compounds containing common functional groups (alkanes, alkenes, alkynes, ha compounds, alcohols, amines, carbonyl compounds,	
April	aromatic compounds). High resolution mass spectrometery. Interpretation of mass spectra. Problems based on mass spectrometry of organic compounds	
May	. CCE exam and Practical Exam	

Name of Class:	M.Sc. III semester
Paper:	Paper I (Photochemistry)
Unit::	Unit - I and II
Name of Teacher:	Dr. Kiran Singh

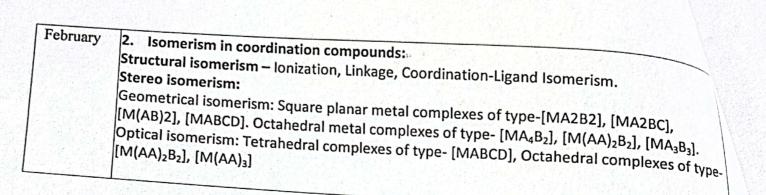
Month	Syllabus	
	Bridge Course	
July	district with matter.	
August	Photochemical Reactions. Interaction of electromagnetic radiation with matter, types of excitations,	
August	fate of excited molecule, quantum yield, transfer of excitation energy, actinometry.	
September	Determination of Reaction Mechanism. Classification, rate constants and li	
October	determination of rate constants of reactions. Effect of light intensity on the rate of photochemical reactions.	
	Types of photochemical reactions-photo dissociation, gas-phase photolysis.	
November		
December	CCE Exam, Semester Examination	

	Dr. Archana Khare
Clas	ching Plan For the Session 2022-2023 s: B.Sc. I year er: II
Mon	
July	Bridge Classes
Augus	chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential. Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.
Septemi	Chromatography Introduction, Principle and Classification. Mechanism of separation: adsorption, partition & ion-exchange. Development of chromatograms: frontal, elution and displacement methods.
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.
November	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.
December	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.
anuary	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy-
	Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts. UV spectra of conjugated polyenes and enones.
N   p   c	Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, haracteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.

Name of Class:	M.Sc. I semester
Paper:	Paper II Organic Chemistry
Unit:	Unit - I and IV
Name of Teacher:	Dr. Archana Khare

Month	Syllabus	
	Bridge Course.	
July	i alegales Delocalized	
August	Structure and Bonding. Bonding in organic molecules. Delocalized chemical bonding-conjugation, cross conjugation, Conjugation, resonance, hyperconjugation.  Aliphatic Nucleophilic Substitution. The S <sub>N</sub> 2, S <sub>N</sub> 1, mixed S <sub>N</sub> 2 and S <sub>N</sub> 1, and SET mechanisms. The S <sub>N</sub> i mechanism. Reactivity effects of substrate structure, attacking nucleophile,	
September	Aromaticity in benzenoid and non-benzenoid compounds, alternate an non-alternate hydrocarbons.  leaving group and reaction medium. The neighbouring group mechanism,	
Octomber	Hückel rule, anti-aromaticity, homo-aromaticity.  Hückel rule, anti-aromaticity, homo-aromaticity.  neighbouring group participation by π and σ bonds. Classical and nonclassical carbocations,	
November	Bonds weaker than covalent bond. Hydrogen bonding, complexes, and cyclodextrin norbornyl system, carbocation rearrangements.	
December	Theory Exam and semester Break	

	Dr. Manju Gupta	
Class 1	ng Plan For the Bession 2022-2023 D.Sc. 11 year Chemistry	
July	Topic =	
August	Uridge Course	
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works; Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory Idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Valkrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.	
Septembe	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to from Complexes	
October	<ol> <li>Chemistry of Inner Transition elements: Lanthanides and Actinides General group tre with special reference to Electronic Configuration, Oxidation States, Colour, Spectral a Magnetic properties.</li> </ol>	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.	
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.	
	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle heorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands	



Name of Class:	M.Sc. I semester
Paper:	Paper - I
Unit::	Unit - I
Name of Teacher:	Dr. Manju Gupta

Month	Syllabus	
	Bridge Course	
July		
August	Stereochemistry and Bonding in Main Group Compounds. VSEPR theory and its application for treating	
September	structures of inorganic molecules and ions containing lone pairs of electrons, shortcomings of VSEPR model.	
October	MO treatment of polyatomic molecules, e.g., ozone, nitrite, nitrate, hydarzoic acid and benzene.  Bent's Rule,	
November	Walsh diagram (triatomic molecules – BeH <sub>2</sub> , H <sub>2</sub> O), d <sub>π</sub> - p <sub>π</sub> bonds (thiazyltrifuoride – NSF <sub>3</sub> )	
December	CCE Exam, Semester Examination	

Name of Class:	M.Sc. III semester
	Paper - I
Paper: Unit : :	Unit - V
Name of Teacher:	Dr. Manju Gupta

Month	Syllabus
	Bridge Course
July	Transport and Storage of Dioxygen: structure and function of hemoglobin,
August	structure and function of myoglobin, hemocyanins and hemerythrin.
September	Poisoning towards hemoglobin
October	myoglobin
November	
December	CCE Exam, Semester Examination

	Dr. Leena Rai
Teaching Class : B Paper :	
Month	Topic
August	Addition and Elimination Reactions  Addition Reactions: Introduction, reactions involving addition of nucleophile, electrophile and free radicals, regio-selectivity and chemo-selectivity, orientation and reactivity, Markovníkov and AntiMarkovníkov's addition.
September	Elimination Reactions: Introduction, E1, E2 and E1cB mechanisms; effect of substrate, attacking species, leaving group and reaction. medium, orientation-Saytzeff and Hofmann rule.
October	Oxidation & Reduction Reactions Oxidation Reactions: Introduction, metal based and non-metal based oxidations, oxidation of alcohols to carbonyls (chromium, manganese, and silver based reagents), alkenes to epoxides (peroxides / peracids based, alkenes to diols (manganese and osmium based), alkenes to carbonyls with bond cleavage (manganese and lead based), Oppenauer oxidation.
	Oxidation of amino groups to nitro groups: oxidation by alkaline KMnO <sub>4</sub> , oxidation of aliphatic and aromatic amines by peracids, oxidation of primary and secondary amines to hydroxyl amine by hydrogen peroxide.  Reduction Reactions: Introduction, Reduction of carbon-carbon multiple bonds, carbonyl groups and nitro compounds: catalytic hydrogenation: heterogeneous (Palladium-carbon & Raney Nickel), homogeneous (Wilkinson's catalyst)
	Hydride transfer reagents: Sodium borohydride and Lithium aluminium hydride, Metal based reductions: Birch reduction, Clemmensen Reduction. Reduction of nitro compounds by catalytic hydrogenation and Metals (with mechanism)
	Pericyclic reactions: Introduction of pericyclic reaction and their classification (Electrocyclic, Sigmatropic rearrangement and cycloadditions), 2+2 and 4+2 cycloaddition,
ebruary	Claisen and Cope rearrangement.
	Class Test

	Dr. Leena Rai
Teaching I Class: B.S Paper: Ch	omistry
Month	Topic Topic
July	Thermodynamics  1. First law of Thermodynamics  Concept of heat (Q), work (W), internal energy (U), Statement of first law, Enthalpy (H), Relation between heat capacities. Calculations of Q, W, $\Delta U$ and $\Delta H$ under isothermal and adiabatic conditions for Reversible, Irreversible and Free (ideal and van der Waals) expansions of gases.  Joule Thomson effect and its theory, Inversion temperature.
August	2. Second law of Thermodynamics Carnot cycle, Statement of the Second law of Thermodynamics. Concept of Entropy, Calculation of entropy change for Reversible and irreversible processes, Concept of residual entropy, Free Energy Functions: Gibbs and Helmholtz energy. Variation of entropy (S),
September	Gibbs free energy (G), work function (A) with temperature (T), volume (V) and pressure (P). Free energy change and spontaneity,. Gibbs- Helmholtz equation.  3. Thirdlaw of Thermodynamics Nerst heat theorem and its significance, Statement of third law, Calculation of absolute entropy of substance.
	Electrochemistry Electrical Conduction: Conduction in metals and in electrolyte solutions, Specific, equivalent and molar conductivity. Measurement of equivalent conductance. Effect of dilution on conductivity. Migration of ions. Kohlrausch law and its applications.
October	Weak and strong electrolytes: Theory of strong electrolytes, Debye-Huckel-Onsager (BHO) theory and equation.  Transport numbers: Determination of transport numbers by Hittorf method and Moving boundary method.  Electrode reactions: Nernst equation, Derivation of equation for single electrode potential.
ovember	Electrodes: Reference electrodes, Standard hydrogen electrodes, Quinhydrone electrode, Glass electrode, Calomel electrode. Standard electrode potential. Electrochemical series and its applications. Electrochemical cells: Nernst equation, calculation of e.m.f. of cell

December	Phase equilibrium
	Concept of phases. Components and degrees of freedom. Thermodynamic derivation of
	Gibbs Phase Rule for reactive and nonreactive systems.
	Clausius- Clapeyron equation and its applications to Solid-Liquid, Liquid-Vapour and Solid-Vapour equilibria
January	
erie vippritri: Wezertsbifcs	Phase diagram for one component systems with applications- Water and Sulphur. Phase diagrams for systems of solid-liquid equilibria involving — Eutectic, Congruent and
A CONTRACTOR OF THE PARTY OF TH	Incongruent melting points. Water and Sulfur system, Ag-Pb and Mg-Zn system, NaCl-H <sub>2</sub> O system.
ebruary	
ebruary	Binary solutions: Raoult's Law, Ideal and Non-ideal or Azeotropic mixtures, immiscible liquids, Steam distillation.

a ili amendija, bitod imela vaton vojetarina a eleiki girvita levol tatan ili alema. Moga viltodisod po lato sasirtizasi akok alemiko kontantiki girvita arenda.

Name of Class:	M.Sc. I semester
Paper:	Paper IV (Spectroscopy)
Unit::	Unit - III
Name of Instructor:	Dr. Leena Rai

Month	Syllabus	
	Bridge Course	
July		
August	Infrared Spectroscopy. Review of linear harmonic oscillator, vibrational energies of diatomic molecules, zero point energy, force constant and bond strengths;	
September	Anharmonicity, Morse potential energy diagram, vibration-rotation spectroscopy P,Q,R branches. Vibrations of polyatomic molecules.	
October	Selection rules, normal modes of vibration, group frequencies, overtones, bands,	
November	factors affecting the band positions and intensities, far IR region.  CCE Exam	
December	Semester Examination	

Name of Class:	M.Sc. II semester
Paper:	Paper II (Inorganic Chemistry)
Unit::	Unit - V
Name of Instructor:	Dr. Leena Rai

Month	Syllabus	
January	Group Theory. Symmetry elements and symmetry operations, symmetry groups or	
February	point groups, Schoenflies symbols, point group classifications,	
March	matrix representation of symmetry operations,	
April	group, necessary conditions for any set of elements to form a group, subgroups classes in a group.	
May	. CCE exam and Practical Exam	

Name of Class:	M.Sc. III semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and II
Name of Instructor:	Dr. Leena Rai

Month	Syllabus	
	Bridge Course	
July	- Cooint groups	
	Group theory. Matrix representation of point groups, Character of a representation, reducible and irreducible representations	
August	and its importance, construction	
September	The great orthogonality theorem (without proof) and its importance, construction of character tables for C <sub>2v</sub> , and C <sub>3v</sub> point groups, importance of character tables.	
October	Group theory and vibrational Spectroscopy. Group theory to symmetry, shapes and molecular energy level diagrams of molecules like BF <sub>3</sub> , NH <sub>3</sub> (AB <sub>3</sub> type), [Pt(NH <sub>3</sub> ) <sub>4</sub> ] <sup>2+</sup> , [Ni(CN) <sub>4</sub> ] <sup>2-</sup> (AB <sub>4</sub> type)	
November	[Co(NH <sub>3</sub> ) <sub>6</sub> ] <sup>3+</sup> (AB <sub>6</sub> type) molecules. Modes of bonding of ligands such as SCN, p ketoenolate and related ligands, nitrate ion and corboxylates.	
	Semester Examination	
December		

Name of Class:	M.Sc. IV semester
Paper:	Paper I (Inorganic Chemistry)
Unit::	Unit - I and III
Name of Instructor:	Dr. Leena Rai

Month	Syllabus
January	Electron Spin Resonance Spectroscopy. Basic principles, hyperfine and superhyperfinesplitting,
February	g value and factors affecting g values, applications to transition metal complexes.
March	Application of group theory to Spectroscopy. Use of group theory in predicting IR and Raman active modes in some simple molecules of C <sub>2v</sub> ,
April	$C_{3v}$ and $D_{\alpha h}$ point groups.
May	. CCE exam and Practical Exam

# Teaching plan 2021-2022

Name of Class:	B.Sc. III year
Paper:	II Organic chemistry
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy.  Proton Magnetic Resonance (1HNMR) Spectroscopy, Nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin coupling and coupling constant, region of signals, Explanation of PMR spectra of simple organic molecules like ethyl bromide, ethanol, acetaldehyde, 1, 1, 2 tribromo ethane, ethylacetate, toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.
September	Explanation of PMR spectra of simple organic molecules like toluene and acetophenone. Applications of UV, IR and PMR spectroscopy for simple organic compounds.  Unit – II  A Organo-Metallic compounds: Organomagnesium compounds- Grignard reagent, preparations, structure and chemical reactions. Organozinc compounds-Preparations and chemical reactions. Organolithium compounds- Preparations and chemical reactions.  B Organo sulphur compounds. Nomenclature, structural characteristics. Thiol, thio-ether, sulphonic acid, sulphonamide and sulphaguanidine-methods of preparations and chemical reactions.
October	A. Carbohydrates:- Classification and nomenclature. Monosaccharides, mechanism of osazone formation, inter conversion of glucose into fructose. Ascending and descending series in aldose. Configuration of monosaccharides. Stereo isomers of erythro and threo sugars. Conversion of glucose into mannose. Glycosides, determination of the size of the ring of monosccharides. Ring structure of D(+) glucose introductory idea of maltose, sucrose, and lactose (Excluding structures Polysaccharides-introductory idea of starch and cellulose (Excluding structures).
November	B. Fat, Oil and Detergents:- Natural fat, edible and industrial oil of plant origin. Normal fatty acids, glycerides Hydrogenation of unsaturated oil, saponification value, iodine value and acid synthetic Detergents:- Alkyl and aryl sulphonate.  Unit – IV  A. Amino Acid, Peptide, Protein and nucleic acid, Classification of amino acids structure and stereo chemistry. Acid base behavior, Isoelectric point and

	electrophoresis. Preparations and chemical reactions of alpha amino acids.
December	Nomenclature and structure of peptide and proteins. Classifications of proteins, determination of peptide structure, end group analysis, selective hydrolysis of peptides, peptide synthesis, solid phase peptid synthesis.  Structure of peptide and proteins, level of proteins structure, denaturation of proteins.  Nucleic Acids: Constitution of nucleic acids, ribonucleoside and ribonucleotide. Double helix structure of DNA.
January	B. Synthetic dyes: Colour and constitution (electronic concept). Classification of dyes-Methyl orange, Congored, Malachite green, crystal violet, Phenophthalein, Fluoroscein, Alizarine and indigo-Chemical study and synthesis.  Unit – V Introduction of pyrrole ,furan ,thiophene and pyridine: Aromatic character and molecular orbital picture, methods of synthesis and specific chemical reactions with reference to electrophillic substitutions. Reaction mechanism of nucleophillic substitution in pyridine derivatives. Comparison of basicity between pyridine,
Fenruary	Introductory idea about five-and six-membered condensed hetercyclic compounds. Indole, Quinoline and isoquinoline-preparations and chemical properties (Fischer-Indole synthesis, Skraup's synthesis, Bischler Napiaralsky synthesis). Electrophilic substitution reactions of Indole, Quinoline and Isoquinoline.
March	Practical Exam

Name of Class:	M.Sc. I semester
Paper:	Paper IV: Spectroscopy
Unit:	Unit - V
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	General introduction of Electronic Spectroscopy. Atomic Spectroscopy, Energies of atomic orbitals, vector representation of momenta and vector coupling,
September	spectra of hydrogen atom and alkali metal atoms, Molecular Spectroscopy Energy levels, molecular orbitals. transitions,
October	vibrational progressions and geometry of the excited states, Franck-Condon principle,
November	electronic spectra of polyatomic molecules, Emission spectra, radiative and non-radiative decay,
December	internal conversion, charge-transfer spectra.  Problems solving Classes, CCE, and practicals Exam
	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
Paper:	Paper IV: Spectroscopy & Diffraction Methods
Unit:	Unit - V
Name of Teacher:	Dr. Rohini Sharma

Month	y Syllabus
January	Thermodynamics of Biopolymer Solutions. Thermodynamics of biopolymer solutions, osmotic pressure and their derivation
Febrauary	Membrane equilibrium, Transport of Ions. Biopolymers and their molecular weights and their numericals
March	Structure and functions of cell membrane, Ion transport through cell membrane Nerve conduction; Evaluation of size,
April	Shape and molecular weight of biopolymers by various experimental techniques.  Problems solving Classes, CCE, and practicals Exam

Name of Class: Paper:	M.Sc. III semester
· uper.	II, Organic chemistry
Unit:	I Unit _
Name of Teacher:	Dr. Rohini Sharma

Month	Syllabus
August	Nuclear Magnetic Resonance Spectroscopy. H-NMR phenomenon. chemical shift, shielding and deshielding mechanism, mechanism of measurement, Chemical Shift,  Statistical Analysis. Emphasis should be placed on numerical problems. Significant figures. Accuracy and precision
September	chemical shift values and its correlation for protons bonded to carbon (aliphatic olefinic, aldehydic and aromatic) and other nuclei (alcohols, phenols, enols, carboxylic acids, amines, amides and mercapto).  Errors, systematic and random errors. Propagation of errors. Standard deviation. Coefficient of variation. Confidence limit.
October	Chemical exchange, effect of deuteration. Spin-spin coupling (first order spectra, AX, AB, AMX spectra). Coupling constant, Karplus curve. Complex spin-spin interactions.  Significance test. t-Test, F-Test. Rejection of a result. The least-squares method for deriving calibration graph. Correlation coefficient. Limit of detection
November	Simplification of complex spectra, nuclear magnetic double resonance, increased field strength, contact shift reagents. Nuclear Overhauser effect (NOE). FT technique  Sample Preparation for Chromatography. Solid-phase extraction, solid-phase microextraction. Extraction with molecular imprinted polymers.
December	

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV), P.
Unit:	(Elective Paper IV): Polymer Chemistry and Organic (Paper II)  Unit - II and V
Name of Teacher:	그리고 그는 그는 그는 그는 그는 그는 그는 그는 그를 하는데 하는데, 나에서 하는데, 얼마나 없는데 그런데 하는데 하는데 때에 그 그렇게 된다. 하는데 하는데 나왔다면 뭐 먹다.
William Programme	Dr. Rohini Sharma

Month	Syllabus
January	Polymer Characterisation. Significance of molecular weight of polymer. Polydispersive average molecular weight. Enzymes. Properties of enzymes, catalytic power, specificity and regulation. Fischer's lock and key and Koshland's induced fit hypothesis.
Febrauary	Number, weight and viscosity average weights. Measurement of molecular weights. End group, viscosity, Identification of active site by the use of inhibitors.  Kinetics. Transition-state theory. Michaelis-Menten equation, and Lineweaver-Burk plot.
March	light scattering, osmotic and ultracentrifugation methods. Chemical and spectroscopic analysis of polymers. X-Ray diffraction study Coenzyme chemistry. Structure and biological functions of coenzyme A, thiamine pyrophosphate, Methods of immobilization of enzymes.
April	Thermal analysis, tensile strength, fatique, impact. Tear resistance. Hardness and ab pyridoxal phosphate, NAD <sup>+</sup> , NADP <sup>+</sup> , FMN, FAD, and vitamin B <sub>12</sub> .  Effect of enzyme immobilization on enzyme activity rasion resistance Enzyme mechanisms for chymotrypsin, lysozyme and carboxypeptidase A.

CAMPAGE CONTRACTOR	Swati Tiwari
Class : I	g Plan For the Session 2022-2023 3.Sc. II year Chemistry
Month	Topic -
July	Bridge Course
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory Idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination  Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to  from Complexes
October	2. Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only). Transuranic elements: General Introduction.
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik.  Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square planar and Octahedral complexes. Limitations of VBT.
	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of d-orbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Telle theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series. Coordination number, coordination geometries of metal ions, types of ligands

parameters. Measurement of 10 Dq ( $\Delta_0$ ) and factors affecting its magnitude. Comparison of octahedral and tetrahedral coordination, Tetragonal distortions from octahedral geometry. Jahn-Teller theorem. Square planar geometry. Limitations of CFT. Qualitative aspect of Ligand field and Molecular Orbital (MO) Theory. Spectrochemical and Nephelauxetic series, Coordination number, coordination geometries of metal ions, types of ligands. February 2. Isomerism in coordination compounds: Structural isomerism – Ionization, Linkage, Coordination-Ligand Isomerism. Stereo isomerism: Geometrical isomerism: Square planar metal complexes of type-[MA2B2], [MA2BC], [M(AB)2], [MABCD]. Octahedral metal complexes of type- [MA<sub>4</sub>B<sub>2</sub>], [M(AA)<sub>2</sub>B<sub>2</sub>], [MA<sub>3</sub>B<sub>3</sub>]. Optical isomerism: Tetrahedral complexes of type- [MABCD], Octahedral complexes of type- [M(AA)<sub>2</sub>B<sub>2</sub>], [M(AA)<sub>3</sub>] CCE And Class test

<u> </u>	Suman Upadhyay	
San Aller Marie	20202022	
Class: D	Plan For the Session 2021-2023 Sc. II Year Topic	
Paper : C		
Month	Bridge Course	
July		
August	Knowledge Tradition of Indian Chemistry Ancient Indian chemists and their works: Nagarjuna, Vagbhata, Govindacharya, Yashodhara, Ramchandra, Somadeva, etc. Introductory idea about rasas Main rasa: Maharas, Uparas, Common Ras, Ratna, Dhatu, Poison, Alkali, Acid, Salt, Lauhabhasma. Maharas: Abram, Vaikrant, Bhasik, Vimala, Shilajatu, Sasak, Chapala, Rasak. Maharas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Uparas: Gandhak, Garik, Kashis, Suvari, Lalak, Manah, Shila, Anjana, Kankushtha. Common Rasa: Koyla, Gautipashan, Navasara, Varataka, Agnijar, Lajavarta, Giri Sindoor, Hingul, Murdad, Sharngakam.	
September	Chemistry of d- & f-block elements  1. Chemistry of Transition elements: First, Second and Third Transition series.  General group trends with special reference to – Electronic Configuration, Coordination Geometry, Colour, Variable Valency, Spectral, Magnetic and Catalytic Properties, Ability to from Complexes.	
October	Chemistry of Inner Transition elements: Lanthanides and Actinides General group trends with special reference to Electronic Configuration, Oxidation States, Colour, Spectral and Magnetic properties.	
November	3. Lanthanide Contraction. Separation of Lanthanides (Ion-exchange method only).  4. Transuranic elements: General Introduction.	
December	Coordination Chemistry  1. Structures, Stereochemistry And Metal-Ligand Bonding In Transition Metal Complexes Werner theory for complexes. Electronic interpretation by Sidwik. Valence Bond Theory (VBT) - Postulates and applications for Tetrahedral, Square plant and Octahedral complexes. Limitations of VBT.	
nuary	Crystal Field Theory (CFT) - Postulates and application: Crystal field splitting of dorbitals. Crystal field stabilization energy (CFSE) in Tetrahedral, Square planar and Octahedral complexes, CFSE of weak and strong fields. Factors affecting the crystal field	

	Mrs Swati Tiwari
Class : B.Sc	lan For the Session 2022-2023 c. Part III ysical Chemistry
Month	Topic
July	Elementary Quantum Mechanics: Black-body radiation. Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects. Compton effect.  De-Broglie hypothesis, the Heisenberg's uncertainty principle, sinusoidal wave equation. Hamiltonian operator. Schrodinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box.
August	Molecular orbital theory: Basic ideas-criteria for forming M.O. from A.O., construction of M.O.'s by LCAO- $H_2$ ion, calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of $\sigma$ , $\sigma^*$ , $\pi^*$ orbitals and their characters. Hybrid orbitals-sp.sp <sup>2</sup> , sp <sup>3</sup> : calculation of coefficients of A.O.'s used in these hybrid orbitals.  Introduction to valence bond model of $H_2$ ion, comparison of M.O. and V.B. models.
September	Spectroscopy: Introduction: Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born-Oppenheimer approximation, degrees of freedom.  Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (semi-classical principles), selection rules, spectral intensity, distribution using population distribution (Maxwell-Boltzmann distribution) determination of bond length, qualitative description of non-rigid rotor, isotope effect.
October	Vibrational Spectrum: Infra-red spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effect of anharmonic motion and isotope on the spectrum, idea of vibrational frequencies of different functional groups.
November	Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules.  Electronic Spectrum: Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of $\sigma$ , $\pi$ and $\pi$ M.O. their energy levels and the respective transition.
December	UV Spectroscopy: Electronic excitation, elementary idea of instrument used. Application to organic molecules. Woodward-Fieser rule for determining $\lambda_{max}$ of enes, polyenes and $\alpha$ , unsaturated carbonyl compounds.

January	Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry; Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radioactive processes (internal coversion, intersystem crossing), quantum yield, photosensitized reactions energy transfer processes (simple examples)	
February	Physical Properties and Molecular Structure:  Optical activity. Polarization (Clausius – Mossotti equation), orientation of diploes in an electric filed, dipole moment, induced dipole moment measurement of dipole moment, termperature method and refractive method, dipole moment and structure of molecules, magnetic properties – paramagnetism, diamagnetism and ferromagnetism.	

Name of Class:	M.Sc. II semester
Paper:	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Biological Cell and its Constituents. Biological cell. Structure and functions of proteins, enzymes, DNA and RNA in living systems.
February	Helix coil transition. Bioenergetics. Standard free energy change in biochemical reactions; exergonic and endergonic reactions.
march	Hydrolysis of ATP. Synthesis of ATP from ADP.  Statistical Mechanics in Biopolymers. Chain configuration of macromolecules statistical distribution end to end dimensions.
April	Polypeptide chain binding and proteins, introduction to protein folding problem.
May	

Name of Class:	M.Sc. III semester
Paper:	Elective Paper IV: Analytical Chemistry PAPER I: Inorganic Chemistry
Unit:	Unit - V and IV
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
August	Acid-Base Titrations. Kjeldahl method for determination of nitrogen.  Determination involving acetylation (amino and hydroxyl groups); and oximation (carbonyl group).  Bioinorganic Chemistry. Metal containing enzymes:  Precipitation Titrations. Argentometric titrations. Mohr titration. Volhard
September	titration. Fajan titration. Carboxypeptidase-A, Carbonic anhydrase, arginase,
October	Complexometric Titrations. Titration with EDTA. Indicators for EDTA titrations. Titration methods: direct and back titrations, and displacement methods. Masking and demasking agents, and their use in EDTA titrations.  "urease, DNA polymerase, phosphoglucomutase (glucose storage):
November	Redox Titrations. Determination of 1,2-diols by periodate oxidation. Kar Fischer titration of water. Determination of DO, BOD and COD. structure and reactivity
December	Theory Exam and semester Break

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper V): Chemistry of Natural Products
Unit:	Unit - V
Name of Teacher:	Mrs. Swati Tiwari

Month	Syllabus
January	Vitamins and Antibiotics. Vitamins. Structure and synthesis of vitamin B <sub>1</sub>
February	Structure and synthesis of (thiamine), B <sub>2</sub> (riboflavin) and B <sub>6</sub> (pyridoxine).
march	Chemistry of Vitamin $B_{12}$ .  Antibiotics. Structure and synthesis of penicillins and chloramphenicol
April	Structure and synthesis of chloramphenicol
May	

	Mrs Suman Upadhyay		
Class : B.	Teaching Plan For the Session 2021-2022 Class: B.Sc. Part I Paper: Paper I		
Month	Topic		
August	Acid-Base concept Arrhenius concept, Bronsted-Lowry's concept, conjugate acids and bases, relative strength of acids, Lewis's concept, pH, buffer solutions. Acid-base neutralisation curves, Handerson equation.		
September	pK values.Indicator, choice of indicators.  Fundamentals of Organic Chemistry  Structure, shape and reactivity of organic molecules: Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation.		
October	Cleavage of Bonds: Homolysis and Heterolysis.Reactive Intermediates: Carbocations, Carbanions and free radicals.Nucleophiles and electrophiles.		
November	Stereochemistry of Organic compounds: Concept of isomerism.Geometrical isomerism: Determination of configuration of geometric isomers. E & Z system of nomenclature, geometric isomerism in oximes and alicyclic compounds.		
December	Optical isomerism: Elements of symmetry, molecular chirality, enantiomers & their properties, stereogeniccentre, optical activity of enantiomers. Concept of chirality (up to two carbon atoms): chiral and achiral molecules with two stereogeniccentres, diastereomers, threo and erythroisomers, meso isomer, resolution of enantiomers, inversion, retention and racemization. Relative and absolute configuration, sequence rules, D & L and R & S systems of nomenclature.		
January	Conformations and Conformational analysis Conformations of ethane, butane and cyclohexane. Interconversion of Wedge Formula, Newman, Sawhorse and Fischer representations.		
	Chemical Kinetics: Rate of reaction, Definition and difference of order and molecularity. Derivation of rate constants for first, second, third and zero order reactions and examples. Derivation for half-life period. Methods to determine the order of reactions. Effect of temperature on rate of reaction, Arrhenius equation, concept of activation energy.		
Pebruary	Ionic Equilibria:  Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Common ion effect. Sal hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Solubility and solubility product of sparingly soluble salts — applications of solubility product.		

	Mra Suman Upadhaya	
Teachi Class : Paper :	ng Plan For the Session 2022-2023 D.Sc. Part I U	
Month	Tople	
July	Bridge Classes	
August	Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential. Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications.	
Septembe	Introduction, Principle and Classification, Mechanism of separation: adsorption, partition & ion-exchange.  Development of chromatograms; frontal, clution and displacement methods.	
October	Paper Chromatography (ascending, descending and circular), Thin Layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.	
November	Principle and Applications of:  • Flash chromatography,  • Ion-exchange chromatography and  • Chiral chromatography.	
December	Basics of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorbance, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.	
nuary	Constitution & working of photometer, spectrometer, colorimeter.  Ultraviolet (UV) absorption spectroscopy- Presentation and analysis of UV spectra, Types of electronic transitions Effect of conjugation. Concept of chromophore and auxochrome Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts UV spectra of conjugated polyenes and enones.	
ruary  Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity an position of IR bands, Measurement of IR spectrum, finger print region characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.		

	Mrs. Suman Upadhyay
Class	ing Plan For the Session 2022-2023 : B.Sc. Part III : Inorganic Chemistry    Topic
100	
July	Introduction: Classification of hard and soft acid-base. Hard and soft acid-base concept of Pearson, Application of hard-soft acid base theory, Symbosis, acide-base strength and hardness and softness; Theoretical basis of hardness and softness, electronic theory, π-bonding theory, and Dragowayland theory, electronegativity and hardness and softness, limitations of hard soft acid-base concept.
August	2. Silicones and Phosphazenes Introduction: silicones-methods of preparation, classication, properties and application (uses). Phosphazenes (Phosphonitrilic chloride)-Methods of preparation and properties: Structure of triphosphazenes. Some other phosphazenes and uses of phosphazenes.
Septembe	<ol> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> <li>Metal Lignad Bonding in Transition Metal Complexes.         Introduction: limitations of valence bond theory, crystal field theory, crystal field splitting of d-orbitals, d-orbital splitting and stabilization energy in octahedral, tetrahedral and square planar complexes; factors affecting the crystal field parameters. Applications of crystal field theory and limitations of crystal field theory.     </li> </ol>
October	Thermodynamic and Kinetic Aspects of Metal Complexes.  Introduction: Thermodynamic aspects of metal complexes, factors affecting thermodynamic stability of complexes, kinetic aspects of metal complexes, stabilization reactions of square planer complexes and factors affecting the rate of substitution reactions in square planar complexes.
lovember	Magnetic Properties of Transition Metal Complexes.  Introduction: Types of magnetic behavior, diamagnetism. Paramagnetism Ferromagnetism. Antiferromagnetism, Ferrimagnetis. Origin and calculation of magnetism. Methods of determining magmetic susceptibility-Guoy, Bhatnager Mathu Quincke's, Curie and Nuclear magnetic Resonance method. Magnetic moment; L-coupling, Determination of ground state term symbol. Correlation of μ <sub>s</sub> and μ <sub>eff</sub> value Orbital contribution to magnetic moments and application of magnetic moment data for 3d-metal complexes.

Decem	Introduction: Type of electronic transition. Selection rules for d-d transitions; spectroscopic ground states-Notations, Spectroscopic states and spectroscopic ground states in complexes; Spectrochemical series; Orgal energy level diagram-Uses in octahedral and tetrahedral complexes complexes having d <sup>1</sup> to d <sup>9</sup> states: Electronic spectrum [Ti (H <sub>2</sub> O) <sub>6</sub> ]3 + complex ion.
January	B. Organometallic Chemistry Introduction: Nomenclatur and Classification of Organometallic compounds. General methods of Preparation: Alkyl and aryl organometallic compounds of Lithium-Preparation. Properties. Bond nature and application; Organometallic compounds of Al, Hg, Sn and Ti-Preparation, Poperties, Bond nature and applications.  A. Bio-Inorganic Chemistry Introduction: Essential and trace elements in biological processes. Biological function of the bio-elements. Availability of bio-metals and bio-non-metals: Metalloporphyrins.
Pebruary	Haemoglobin structure and biological function. Myoglobin-mechanism of oxygen transfer through haemoglobin and myoglobin; Relation between haemoglobin and myoglobin and chemical reaction of haemoglobin and myoglobin; Biological role of alkali and alkaline earth metal ions with special reference to Ca2+; Nitrogen fixation.  B. Metal Nitrosyl Complex Nitrosylating agents. Synthesis, Structure, Properties and Bonding.

Name of Class:	Meal
Paper:	M.Sc. I semester Paper: III Physical Chemistry
Unit:	Unit - IV
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
August	Chemical Dynamics (Part I). Methods of determining rate laws
September	, Arrhenius equation, collision theory of reaction rates,
October	steric factor, activated complex theory, ionic reactions,
November	kinetic and thermodynamic control of reactions.
December	Theory Exam and semester Break

Name of Class:	M.Sc. II semester
Paper:	PAPER IV: Spectroscopy & Diffraction Methods
Unit:	Unit - II
Name of Teacher:	

Month	Syllabus
January	X-ray Diffraction. Bragg condition, Miller indices, Laue method, Bragg method,
February	Debye-Scherrer method of X-ray structural analysis of crystals, index reflections, identification of unit cells from systematic absences in diffraction pattern.
march	Structure of simple lattices and X-ray intensities, structure factor and its relation to intensity and electron density.
April	Description of the procedure for an X-ray structure analysis.
May	

Name of Class	Wr. 25. III Sennessen
Sahan	PATER WE PRESCUE SHILL SHOW CHAMINGS
limit:	W-ZmV
Name of Teacher:	Mrs. Suman Upadhyay

Monoh	Syliabus	
August	Montogeneous Cumpais Stricthicuscusic senericum (in emint) nin	
Sabtemper	. Assumptioners and set find the second of the second seco	
Octomber	Actorogenous Catalant Themselfmanics of series control, mechanism of betweetenous catalants	
November	anaganay bissinstissi ang anaganay month jempen	
December		

Name of Class:	M.Sc. IV semester
Paper:	(Elective Paper IV): Polymer Chemistry
Unit:	Unit - V
Name of Teacher:	Mrs. Suman Upadhyay

Month	Syllabus
January	Properties of Polymers. Properties of polyethylene, polyvinyl chloride,
Febrauary	polyamides, polyesters, phenolic resins, epoxy resins and silicone polymers. Functional polymers. Fire retarding polymers,
March	and electrically conducting polymers. Biomedical polymers. contact lens,
April	dental polymers, artificial heart, kidney, skin and blood cells.

**SESSION: 2023-24** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

#### **Teaching Plan for Academic Year 2023-24 (Under Graduate)**

#### **Paper – Textile Design & Fashion Illustration**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co- Curricular Activity
1.	1. July 1 Week		2	Meaning and importance of Design Importance of good taste in design	
		2 Week	2	Challenges and opportunities for design and designers	
		3 Week	2	Elements of Design Its Co-Relation Point	
		4 Week	2	Line	Celebration of World Embroidery Day
2.	August	1 Week	2	Colour	Celebration on National Handloom Day
		2 Week	2	Plane, Volume	Online Quiz
		3 Week	2	Space, Shape, Form	
		4 Week	2	Light, Texture. Pattern	
3.	September	1 Week	2	Principles of Design and Its Co-Relation	
		2 Week	2	Balance	
		3 Week	2	Proportion and scale	Lecture Series with workshop
		4 Week	2	Rhythm	Online Quiz
4.	October	1 Week	2	Emphasis	
		2 Week	2	Harmony	
		3 Week	2	Contrast	Online Quiz
		4 Week	2	Variety	
5.	November	1 Week	2	Law of area	
		2 Week	2	Line and its expressiveness	
		3 Week	2	Types and composition, Effect of lines to create rhythm and optical illusions	
		4 Week	2	Effect of lines to create rhythm and optical illusions	Online Quiz

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6.	December	1 Week	2	Colour expression,		
		2 Week	2	Colour wheel and its dimension	Workshop	
		3 Week	2	Colour wheel and its dimension	Online Quiz	
		4 Week	2	Colour mixing and colour system		
7.	January	1 Week	2	Colour harmony and colour schemes		
		2 Week	2	Colour in different media		
		3 Week	2	Colour in fabric, texture and light	Online Quiz	
		4 Week	2	Pattern- Surface pattern and pattern		
				group, Repeat pattern		
8.	February	1 Week	2	Balance and proportion in human		
				body: -average and fashion figures		
		2 Week	2	Postures of male	Online Quiz	
		3 Week	2	Postures of female		
		4 Week	2	Postures of children		
9.	March	1 Week	2	Stylizing the croquis and its		
				importance		
				Understanding fabric textures and		
				drapes.		
		2 Week	2	Revision		
		3 Week		Session End – Examination (Practical & Theory)		
		4 Week				

Dr. Rachana Agrawal
Incharge
Principal

Dr Bhavana Sharma

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 1st Year

#### **Teaching Plan for Academic Year 2022-23 (Under Graduate)**

#### **Paper – Fundamentals of Textiles**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co-Curricular Activity
1.	July	1 Week	2	Introduction of Fundamentals	
				of Textiles	
		2 Week	2	A brief historical background	
				of textiles and Textile	
				terminology	
		3 Week	2	Classification of textile fibers	
		4 Week	2	Introduction to polymerization	World Embroidery Day
				and molecular arrangement of	Formation of
				fibers	Srajan Club
2.	August	1 Week	2	Physical and Chemical	Industrial Machine
				properties of fibers	Excision Visit
		2 Week	2	FIBRES- History, production,	Handloom Day
				properties, types and uses of	
				various fibres, Natural fibers	
				Cellulosic - Cotton	
		3 Week	2	Linen	Tiranga Badge
		4 Week	2	Jute	
3.	September	1 Week	2	Protein - Silk	Lecture on Green Laundry Practice
		2 Week	2	Wool	Fancy Dress Competition
		3 Week	2	Man - made fibers	Lecture on Eco- Fashion
				Rayon - Viscose	1 usinon
		4 Week	2	Acetate Rayon	
4.	October	1 Week	2	Nylon	
		2 Week	2	Polyester	Spot Painting & Clay Modelling
		3 Week	2	Acrylic	
		4 Week	2	Yarn and Fabric	
				1. Yarns-	

				1.1 Processes of yarn making:	
				Mechanical spinning,	
				Chemical spinning.	
5.	November	1 Week	2	Classification of yarns: simple,	
				complex textured	
		2 Week	2	Properties of yarns: Yarn	Educational
				numbering systems and yarn	Visit
				twist.	
		3 Week	2	Blends: Types of blends and	Lecture on
				purpose of blending	Clothing and Personality
		4 Week	2	Woven fabrics	
				Loom- parts and motion of	
				loom	
6.	December	1 Week	2	Classification- Basic weaves-	National Workshop
				Plain, Twill, Satin, Sateen	Workshop
		2 Week	2	Novelty weaves- Pile, Leno -	
				Gauze, Honeycomb,	
				Huckaback, Bird's eye	
		3 Week	2	Knitted fabrics –	
				31 Terminology used	
				3.2. Types of knitting- Hand	
				knitting. Machine knitting	
		4 Week	2	Non-woven and felts	
				Construction, propertiesusage	
7.	January	1 Week	2	Classification of dyes	Workshop on Art &Textile
		2 Week	2	Methods of dyeing- Simple,	
				Pad, Dope, Top, Union dyeing	
		3 Week	2	Components of dyeing and its	
				relation to dye material	
		4 Week	2	Types of printing- Block,	
				Stencil, Screen, Roller, Resist	
				printing (Tie & Dye, Batik)	
8.	February	1 Week	2	Modern Methods of printing-	
				Duplex, Discharge, Flock,	
				Blotch, Extract printing	

		2 Week	2	Pre - preparation for printing (printing paste, printing table)	Interdisciplinary Workshop on 5Rs of Waste Management
		3 Week	2	Finishing	
				Basic finishes - Singeing,	
				Scouring, Bleaching, Sizing,	
				Weighting, Degumming,	
				Mercerizing, Sanforizing and	
				Calendaring	
		4 Week	2	Special finishes- Wrinkle	
				resistance, Water resistance	
				and repellent,	
9.	March	1 Week	2	Flame Retardant, Durable	
				press, soil release, Anti pilling.	
		2 Week	2	Revision	
		3 Week		Session End – Examination (Practical	& Theory)
		4 Week			

Dr. Nandita Sarkar
Incharge Principal

Dr Bhavana Sharma Head

**SESSION: 2023-24** 

Class: B.Sc. (H. Sc.) 1st Year

#### **Teaching Plan for Academic Year 2023-24 (Under Graduate)**

#### **Paper – Fundamentals of Textiles**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co-Curricular Activity
1.	July	1 Week	2	Introduction of Fundamentals	Formation of Srajan Club
				of Textiles	Si ajan Ciub
		2 Week	2	A brief historical background of	
				textiles and Textile terminology	
		3 Week	2	Classification of textile fibers	
		4 Week	2	Introduction to polymerization	
				and molecular arrangement of	
				fibers	
2.	August	1 Week	2	Physical and Chemical	Handloom Day
				properties of fibers	
		2 Week	2	FIBRES- History, production,	Har Ghar
				properties, types and uses of	Tiranga
				various fibres	
				Natural fibers	
				Cellulosic - Cotton	
		3 Week	2	Linen	
		4 Week	2	Jute	
3.	September	1 Week	2	Protein - Silk	
		2 Week	2	Wool	
		3 Week	2	Man - made fibers	Online -Quiz
				Rayon - Viscose	
		4 Week	2	Acetate Rayon	Machine Sewing Demonstration
4.	October	1 Week	2	Nylon	

		2 Week	2	Polyester	Online -Quiz
		3 Week	2	Acrylic	Lecture and Workshop- Woven Textile Technique
		4 Week	2	Yarn and Fabric	Lecture – Fashion
				1. Yarns-	Communication
				1.1 Processes of yarn making:	
				Mechanical spinning,	
				Chemical spinning.	
5.	November	1 Week	2	Classification of yarns: simple,	
				complex textured	
		2 Week	2	Properties of yarns: Yarn	
				numbering systems and yarn	
				twist.	
		3 Week	2	Blends: Types of blends and	
				purpose of blending	
		4 Week	2	Woven fabrics	Online -Quiz
				Loom- parts and motion of	
				loom	
6.	December	1 Week	2	Classification- Basic weaves-	
				Plain, Twill, Satin, Sateen	
		2 Week	2	Novelty weaves- Pile, Leno -	Two Day Workshop
				Gauze, Honeycomb,	,, 01113110 <b>p</b>
				Huckaback, Bird's eye	
		3 Week	2	Knitted fabrics –	Lecture and Workshop
				31 Terminology used	P
				3.2. Types of knitting- Hand	
				knitting. Machine knitting	
		4 Week	2	Non-woven and felts	Online -Quiz
				Construction, properties and	
				usage	
7.	January	1 Week	2	Dyes	
				Classification of dyes	

		2 Week	2	Methods of dyeing- Simple,	
				Pad, Dope, Top, Union dyeing	
		3 Week	2	Components of dyeing and its	
				relation to dye material	
		4 Week	2	Printing	Online -Quiz
				Types of printing- Block,	
				Stencil, Screen, Roller, Resist	
				printing (Tie & Dye, Batik)	
8.	February	1 Week	2	Modern Methods of printing-	
				Duplex, Discharge, Flock,	
				Blotch, Extract printing	
		2 Week	2	Pre - preparation for printing	
				(printing paste, printing table)	
		3 Week	2	Finishing	
				Basic finishes - Singeing,	
				Scouring, Bleaching, Sizing,	
				Weighting, Degumming,	
				Mercerizing, Sanforizing and	
				Calendaring	
		4 Week	2	Special finishes- Wrinkle	Online -Quiz
				resistance, Water resistance	
				and repellent,	
9.	March	1 Week	2	Flame Retardant, Durable	
				press, soil release, Anti pilling.	
		2 Week	2	Revision	
		3 Week 4 Week	\$	Session End – Examination (Practical	& Theory)
	1	4 week			

Dr Bhavana Sharma

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

SESSION: 2022-23

Class: B.Sc. (H. Sc.) 2<sup>nd</sup> Year

Teaching Plan for Academic Year 2022-23 (Under Graduate)

#### Paper- Fundamental of Clothing Construction

S. No.	Month & No. of working Days	Week	No. Of Period Per Week	Theory	Co- Curricular Activity
1.	July	1 Week	2	History and Origin of Clothing	
		2 Week	2	Use of clothing among primitive people	
		3 Week	2	Functions and theories of clothing	
		4 Week	2	Clothing in relation to culture	world Embroidery Day
2.	August	1 Week	2	Self - respect, self - enhancement, self - expression, gender desirability and individuality.	Celebration on National Handloom Day
		2 Week	2	Socio - psychological aspects of clothing	Online Quiz
		3 Week	2	Significance of uniforms and national costumes	
		4 Week	2	Terminology of Textile & Clothing & Revision	
3.	September	1 Week	2	Introduction of Sewing machine Parts of sewing machine	
		2 Week	2	Maintenance of Sewing machine	
		3 Week	2	Common problems and it's remedies.	Lecture series with workshop
		4 Week	2	Tools and equipment used for clothing construction. Measuring tool, drafting tool, marking tool	Online quiz
4.	October	1 Week	2	Cutting tool, stitching tool, pressing tool.	
		2 Week	2	Anthropometric measurements	
		3 Week	2	Instruments used for anthropometric measurements	Online quiz

		4 Week	2	Standardization and size	
<u> </u>				charts	
5.	November	1 Week	2	Importance and use of	
		0.777		size charts.	
		2 Week	2	Size charts of child,	
		0.777 1		woman and man.	
		3 Week	2	Factors affecting	
				selection of fabrics-	
				Social factors, Economic	
				factors, Physiological	
				factors, Environmental	
		4	0	factors.	Online quis
		=	2	Revision (Unit 2) &	Online quiz
		Week		Design Components	
6	Dogombon	1 Woolr	0	Elements of design	
6.	December	1 Week 2 Week	2 2	Elements of design	Workshop
				Elements of design	Workshop
		3 Week	2	Basic principles of	Online quiz
		4 Week	2	design	
		4 Week	2	Basic principles of	
7.	January	1 Week	2	design Relation between	
/ .	January	1 WCCK	4	elements and principles	
				of design to the Clothing	
				and Fashion	
		2 Week	2	3. Colour, line and	
			-	texture in relation to:	
				Age, Season, Occasion,	
				Figure and Complexion	
		3 Week	2	Colour, line and texture	Online quiz
				in relation to: Age,	•
				Season, Occasion,	
				Figure and Complexion	
		4 Week	2	Components of	
				Garments-	
				Garment Silhouettes	
8.	February	1 Week	2	Introduction to basic	
				Garments-Frock,	
		2 Week	2	Ladies' kurta, Blouse	Online quiz
		3 Week	2	Necklines, Fullness	
_		4 Week	2	Pockets, Seams	
9.	March	1 Week	2	Sleeve, Yoke and	
		0.777		Plackets	
		2 Week	2	Revision	10.70
		3 Week	Se	ssion End – Examination (Practica	al & Theory)
		4 Week			

Dr. Reena Bhairam

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

SESSION: 2023-24 Class: B.Sc. (H. Sc.) 2<sup>nd</sup> Year

Teaching Plan for Academic Year 2023-24 (Under Graduate)

#### Paper- Fundamental of Clothing Construction

S. No.	Month & No. of working Days	Week	No. Of Period Per Week	Theory	Co-Curricular Activity
1.	July	1 Week	2	History and Origin of Clothing	Formation of Srajan Club
		2 Week	2	Use of clothing among primitive people	
		3 Week	2	Functions and theories of clothing	
		4 Week	2	Clothing in relation to culture	
2.	August	1 Week	2	Self - respect, self - enhancement, self - expression, gender desirability and individuality.	Handloom Day
		2 Week	2	Socio - psychological aspects of clothing	Har Ghar Tiranga
		3 Week	2	Significance of uniforms and national costumes	
		4 Week	2	Terminology of Textile & Clothing & Revision	
3.	September	1 Week	2	Introduction of Sewing machine Parts of sewing machine	
		2 Week	2	Maintenance of Sewing machine	
		3 Week	2	Common problems and it's remedies.	Online -Quiz
		4 Week	2	Tools and equipment used for clothing construction. Measuring tool, drafting tool, marking tool	Machine Sewing Demonstration
4.	October	1 Week	2	Cutting tool, stitching tool, pressing tool.	
		2 Week	2	Anthropometric measurements	Online -Quiz
		3 Week	2	Instruments used for anthropometric measurements	Lecture and Workshop- Woven Textile Technique
		4 Week	2	Standardization and size charts	Lecture – Fashion Communication
5.	November	1 Week	2	Importance and use of size charts.	

		2 Week	2	Size charts of child,	
				woman and man.	
		3 Week	2	Factors affecting selection	
				of fabrics- Social factors,	
				Economic factors,	
				Physiological factors,	
				Environmental factors.	
		4 Week	2	Revision (Unit 2) & Design	Online quiz
				Components	
				Elements of design	
6.	December	1 Week	2	Elements of design	
		2 Week	2	Elements of design	Two Day Workshop
		3 Week	2	Basic principles of design	Lecture and Workshop
		4 Week	2	Basic principles of design	Online -Quiz
	<b>T</b>				Offiffie -Quiz
7.	January	1 Week	2	Relation between elements	
				and principles of design to	
		0.337 1		the Clothing and Fashion	
		2 Week	2	3. Colour, line and texture	
				in relation to: Age, Season,	
				Occasion, Figure and	
		2.337 1	0	Complexion	
		3 Week	2	Colour, line and texture in	
				relation to: Age, Season,	
				Occasion, Figure and	
		4 Week	0	Complexion	Online O:-
		4 week	2	Components of Garments-	Online -Quiz
0	E o la ser	1 3371-	0	Garment Silhouettes	
8.	February	1 Week	2	Introduction to basic	
		0.117 1		Garments-Frock,	
		2 Week	2	Ladies' kurta, Blouse	
		3 Week	2	Necklines, Fullness	0 1: 0 :
	3.6 1	4 Week	2	Pockets, Seams	Online -Quiz
9.	March	1 Week	2	Sleeve, Yoke and Plackets	
		2 Week	2	Revision	
		3 Week	Sessi	on End – Examination (Pract	ical & Theory)
		4 Week			

Dr. Reena Bhairam

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

**SESSION: 2023-24** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

#### **Teaching Plan for Academic Year 2023-24 (Under Graduate)**

#### **Paper – Apparel Consruction**

S. No.	Month &No. of		No. Of Period	Topic To Be Covered	Co- Curricular
110.	working Days	Week	Per Week		Activity
1.	July	1 Week	2	Elements of apparel construction: Grain, seams, Finish, Workmanship	
		2 Week	2	Guides to sew fabrics Threads, needles, seams and its co-relation to fabric.	
		3 Week	2	Uses of essentials tools and supplies Sewing Needles, hand sewing tools, marking tools	
		4 Week	2	Measuring tools, cutting tools	Celebration of World Embroidery Day
2.	August	1 Week	2	Pressing tools, threads, special tools	Celebration on National Handloom Day
		2 Week	2	Trims & tapes, buttons & closures	Online Quiz
		3 Week	2	Principals of taking BM	
		4 Week	2	Taking accurate body measurements.  Measuring from a garment.	
3.	September	1 Week	2	Size Charts- Kids, Men	
		2 Week	2	Size Charts- Women. Ease Allowance for various fit.	
		3 Week	2	Comparison of standard size charts from different countries and brands.	Lecture Series with Workshop
		4 Week	2	Calculation fabric needed for various garments. Optimizing the fabric requirement	Online Quiz
4.	October	1 Week	2	Principles and methods of grading and sizing	
		2 Week	2	Introduction to Pattern Making. Pattern making tools.	
		3 Week	2	Pattern Making techniques: Drafting, Draping and flat Pattern techniques.	Online Quiz

		4 Wash	2	Darts and their manipulation	
5.	November	Week 1	2	Added fully see and sententials	
3.	November	Week	Z	Added fullness and contouring.	
		2	2	Principles of pattern making for: Upper	
		Week		garment	
		3 Week	2	Lower garment	
		4 Week	2	Sleeves, Collar	Online Quiz
6.	December	1 Week	2	Dresses	
		2 Week	2	Fabric Preparation	Workshop
		3 Week	2	Laying out checks	Online Quiz
		4 Week	2	Laying out plaids	
7.	January	1 Week	2	Laying out directional fabrics,	
		2 Week	2	Marking with Chalk, Pencil or Liquid markers.	
		3 Week	2	Cutting and sewing tips	Online Quiz
		4 Week	2	Fabrics: Easy to stitch, special fabrics,	
8.	February	1 Week	2	Textured and patterned fabric	
		2 Week	2	Selection of appropriate fabric for apparels	Online Quiz
		3 Week	2	Accessories and trimmings: types and use	
		4 Week	2	Appropriate combination of accessories	
9.	March	1 Week	2	Trims and materials	
		2 Week	2	Revision	
		3		Session End – Examination (Practical & Th	eory)
		Week		•	-
		4			
		Week			

Ms Manju Barkhane

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 3rd Year

#### **Teaching Plan for Academic Year 2022-23 (Under Graduate)**

#### **Paper- Apparel Construction**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co- Curricular Activity
1.	1. July	1 Week	2	Elements of apparel construction: Grain, seams, Finish, Workmanship	
		2 Week	2	Guides to sew fabrics Threads, needles, seams and its co-relation to fabric.	
		3 Week	2	Uses of essentials tools and supplies Sewing Needles, hand sewing tools, marking tools	
		4 Week	2	Measuring tools, cutting tools	Celebration of World Embroidery Day
2.	August	1 Week	2	Pressing tools, threads, special tools	Celebration on National Handloom Day
		2 Week	2	Trims & tapes, buttons & closures	Online Quiz
		3 Week	2	Principals of taking BM	
		4 Week	2	Taking accurate body measurements.  Measuring from a garment.	
3.	September	1 Week	2	Size Charts- Kids, Men	
		2 Week	2	Size Charts- Women. Ease Allowance for various fit.	
		3 Week	2	Comparison of standard size charts from different countries and brands.	Lecture Series with Workshop
		4 Week	2	Calculation fabric needed for various garments. Optimizing the fabric requirement	Online Quiz
4.	October	1 Week	2	Principles and methods of grading and sizing	
		2 Week	2	Introduction to Pattern Making. Pattern making tools.	
		3 Week	2	Pattern Making techniques: Drafting, Draping and flat Pattern techniques.	Online Quiz
		4 Week	2	Darts and their manipulation	

5.	November	1	2	Added fullness and contouring.	
		Week			
		2 Week	2	Principles of pattern making for: Upper garment	
		3	2	Lower garment	
		Week	_	Lower garment	
		4 Week	2	Sleeves, Collar	Online Quiz
6.	December	1	2	Dresses	
		Week			
		2	2	Fabric Preparation	Workshop
		Week			
		3 Week	2	Laying out checks	Online Quiz
		4 Week	2	Laying out plaids	
7.	January	1 Week	2	Laying out directional fabrics,	
		2	2	Marking with Chalk, Pencil or Liquid	
		Week		markers.	0.11.0.1
		3 Week	2	Cutting and sewing tips	Online Quiz
		4 Week	2	Fabrics: Easy to stitch, special fabrics,	
8.	February	1	2	Textured and patterned fabric	
		Week 2	2	Selection of appropriate fabric for apparels	Online Quiz
		Week 3	2	Accessories and trimmings, tunes and use	
		Week	2	Accessories and trimmings: types and use	
		4	2	Appropriate combination of accessories	
		Week			
9.	March	1 Week	2	Trims and materials	
		2	2	Revision	
		Week			
		3		Session End – Examination (Practical & Th	eory)
		Week			
		4			
		Week			

Ms Manju	Barkhane
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Dr. Nandita Sarkar

Incharge Principal

Dr Bhavana Sharma

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 3rd Year

#### **Teaching Plan for Academic Year 2022-23 (Under Graduate)**

Job Oriented Course option (A)
Paper -Garment Designing and Fashion

	1	1	1		
S. No.	Month &No. of		No. Of Period	Topic To Be Covered	Co- Curricular
110.	working	Week	Per		Activity
	Days	WEEK	Week		Activity
1.	July	1	2	Body measurements for different	
		Week		age group and its importance.	
		2	2	Preparing measurement charts.	
		Week			
		3	2	Designing and sketching of	
		Week		following figure:	
				A. Eight head figure.	
		4	2	B. Fashion figure	Celebration
		Week		J	of World
					Embroidery
		_	_		Day
2.	August	1	2	Normal and abnormal body,	Celebration
		Week			on National
					Handloom Day
		2	2	Types of figure defects.	Online Quiz
		Week	_	Types of figure defects.	Carrier Quan
		3	2	Definition of fashion.	
		Week		•	
		4 Week	2	Theories of fashion.	
3.	September	1 Week	2	Term related to fashion industry	
		2 Week	2	Factors affecting and regarding fashion.	
		3	2	Study of basic design feature in	Lecture
		Week		costume.	Series with Workshop
		4	2	Costumes of different state of	Online Quiz
		Week	_	India	Carrie Quie
4.	October	1	2	Costumes of different state of	
-		Week		India	
		2	2	western countries	
		Week			
		3	2	Special clothing for-	Online Quiz
		Week		Old age	
		4	2	Physically challenged children	
		Week			
5.	November	1	2	Pregnant and Nursing mothers	
		Week		<i>G</i>	

		_	2	D D C 1.111	
		2 Week	2	Paper Patterns for children wear (any 3)	
		3 Week	2	Paper Patterns for children wear	
		Week		(any 3)	
		4 Week	2	Paper Patterns for men's wear (any 2)	Online Quiz
6.	December	1	2	Paper Patterns for men's wear	
0.	December	Week	2	(any 2)	
		2	2	Paper Patterns for ladies' wear	Workshop
		Week	_		, emanop
		3	2	Paper Patterns for ladies' wear	Online Quiz
		Week		(any 3)	
		4	2	Preparing Layout for fabrics and	
		Week		printed fabrics.	
7. January  1 2 Cloth estimation.  2 Week  3 2 Fur: Source, Types and Uses  Week  4 2 Evaluating quality in garment on the basis of fabric and workmanship, cutting, stitching,  8. February  1 2 Seams, hems, fastening, pocket, collar, cuffs, fullness, sleeves, linings and trimming  2 2 Advertising and Sales promotion  Week  3 2 Role and types of advertising.  4 2 Methods of sales promotion-Brands, labelling-types of labels, fashion show, exhibitions, display etc.  9. March  1 2 Retailing and merchandising-standardization, consumer acts for different Textile and clothing					
Week   Printed fabrics.					
		_	2	Leather: Source, Types and Uses	
			2	Fur: Source Types and Uses	Online Quiz
		Week	_	rar. source, Types and Oses	ommo Quin
		_	2	Evaluating quality in garment on	
		Week			
				workmanship, cutting, stitching,	
	T 1	1	2		
8.	February	_	2		
		week			
		2	2		Online Ovic
		_	2	Advertising and Sales promotion	Online Quiz
			2	Role and types of advertising.	
		Week		The same of the second	
		4	2	Methods of sales promotion-	
		Week		Brands, labelling-types of labels,	
				fashion show, exhibitions,	
				display etc.	
0	March	1	?	Retailing and merchandising	
<b>)</b> •	wiai Cii		<u> </u>	_	
				,	
				products.	
		2	2	Revision	
	8. February  1			oory)	
Week   (any 3)		Session Enu – Examination (Fractical & 11)	eory)		
		Week			

Dr. Rachana Agrawal

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

Head

### GOVT. M. H. COLLEGE OF HOME SCIENCE AND SCIENCE FOR WOMEN JABALPUR DEPARTMENT OF CLOTHING AND TEXTILE

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

### **Teaching Plan for Academic Year 2022-23 (Under Graduate)**

### Paper – Apparel Designing

S.	Month		No. Of	Topic To Be Covered	Co-
No.	&No. of		Period	Topic to be Covered	Curricular
110.	working	Week	Per		Activity
	Days		Week		
1.	July	1	3	Elements of art:	
	•	Week		Lines: Meaning, types, effects.	
		2	3	Shape: Meaning, Classification	
		Week		and effects.	
		3	3	Forms: Types	
		Week		Torms, Types	
		4	3	Space: Meaning and importance	Celebration
		Week		space: meaning and importance	of World
					Embroidery
					Day
2.	August	1	3	Colour: Dimension of colour,	Celebration
		Week			on National
					Handloom
		2	3	.1	Day
		Week	3	theories of colour,	Online Quiz
		3	3	colour schemes.	
		Week		colour schemes.	
		4	3	Tortumas Magning tortum	
		Week	3	Textures: Meaning, texture	
		VVCCK		terminology, texture	
				combination, and factors	
				affecting texture in textiles.	
3.	September	1	3	Duin sin los of dosimo	
٥.	September	Week	3	Principles of design:	
		VVCCK		Proportion: Meaning, golden	
		2	3	mean proportion, importance.	
		Week	3	Balance: Meaning, Types and	
			2	their importance.	T .
		_	3	Rhythm: meaning, method of	Lecture Series with
		WEEK		creating, importance.	Workshop
		4	3	Emphasis: Meaning, Method of	Online Quiz
				its Creation, importance.	Jimio Quiz
4	Week  4 Week	3	Harmony: Meaning and		
т.	October	_		importance	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
		2	3	Clathing one and storage	
		Week		Clothing care and storage.	
		3	3	Evolution and commerce of	Onlina Owi-
		Week	3	Evaluation and comparison of	Online Quiz
		VICER		Readymade and tailor-made	
		4	2	garments.	
		4 Week	3	Principles of figure drawing – 8	
		week		head figure and fashion figure.	

5.	November	1	3	Silhouette-types	
		Week			
		2 Week	3	Figure types –designing for different figure types	
		3 Week	3	Fitting sessions-first, second and final	
		4 Week	3	Fitting: problems and remedies.	Online Quiz
6.	December	1 Week	3	Darttypes and manipulation	
		2 Week	3	Study of different types of sleeves-Plain, Raglan, Kimono, Puff.	Workshop
		3 Week	3	Definition & terminology of fashion.	Online Quiz
		4 Week	3	Fashion cycle	
7.	January	1 Week	3	Drafting & Layout of the following garments: Bush-shirt	
		2 Week	3	knickers	
		3 Week	3	Kurta	Online Quiz
		4 Week	3	Salwar	
8.	February	1 Week	3	Skirts: A-line,	
		2 Week	3	Skirts: flared	Online Quiz
		3 Week	3	Peticoat	
		4 Week	3	Plain Blouse	
9.	March	1 Week	3	Plain Blouse	
		2 Week	3	Revision	
		3 Week		Session End – Examination (Practical & Th	eory)
		4 Week			

Dr. Rachana Agrawal

Dr. Nandita Sarkar

Incharge

Principal

Dr Bhavana Sharma

Head

### GOVT. M. H. COLLEGE OF HOME SCIENCE AND SCIENCE FOR WOMEN JABALPUR DEPARTMENT OF CLOTHING AND TEXTILE

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

### Teaching Plan for Academic Year 2022-23 (Under Graduate)

### Paper – Textile Craft

S. No.	Month &No. of	Week	No. Of Period	Topic To Be Covered	Co- Curricular
	working Days		Per Week		Activity
1.	July	1 Week	2	Introduction to Crafts	
		2 Week	2	Crafts- meaning	
		3 Week	2	Classification of Craft	
		4 Week	2	Classification of Craft	Celebration of World Embroidery Day
2.	2. August 1 Wee  2 Wee  3 Wee  4 Wee  2 Week  3 Week  3 Wee		2	Craftsperson- role	Celebration on National Handloom Day
		2 Week	2	Craftsperson- responsibilities	Online Quiz
		3 Week	2	Philosophy – indigenous textile Craft	
		4 Week	2	Aesthetics - indigenous textile Crafts	
3.			2	Philosophy – contemporary textile Crafts	
	3. September 1 W 2 Wee		2	Aesthetics- contemporary textile Crafts	
		3 Week	2	Types of Textile Crafts-traditional	Lecture Series with workshop
		4 Week	2	Types of Textile Crafts- modern	Online Quiz
4.	October	1 Week	2	Materials - fiber, yarn	
		2 Week	2	fabric and products for textile Craft	
		3 Week 2 4 Week 2 Week 3 Week 2 Week 3 Week 2 4 Week 2 Week 2 Week 2 Week 2 Week 2 3 Week 2 Week 2 3 Week 2		Traditional needle craft techniques- Kashida -Kasuti Interaction with artisans	Online Quiz
		4 Week	2	Kantha, Chikankari	
5.	5. November 1 W		2	Cutch work, Phulkari	
		2 Week	2	Dyed, Painted and Printed Textiles- Kalamkari	
	August  September  October  November	3 Week	2	Bandhani	
				Ikats	Online Quiz

6.	December	1 Week	2	Pichwais	
		2 Week	2	Ajrakh	Workshop
		3 Week	2	Bagru	Online Quiz
		4 Week	2	Woven Saris of India-	
				Brocades Jamdani	
7.	January	1 Week	2	Baluchar,	
		2 Week	2	Paithani	
		3 Week	2	Chanderi, Kanjeevarams	Online Quiz
		4 Week	2	Shawls and Carpets of various centres	
8.	February	1 Week	2	Cultural Empowerment through Crafts	
		2 Week	2	Economic Empowerment through Crafts	Online Quiz
		3 Week	2	Textiles crafts in national economy	
		4 Week	2	Textiles crafts in national economy	
9.	March	1 Week	2	Textiles crafts in national economy	
		2 Week	2	Revision	
		3 Week		Session End – Examination (Practical & The	ory)
		4 Week			

Ms Manju Barkhane Dr. Nandita Sarkar Incharge Principal

Dr Bhavana Sharma Head

### GOVT. M. H. COLLEGE OF HOME SCIENCE AND SCIENCE FOR WOMEN JABALPUR DEPARTMENT OF CLOTHING AND TEXTILE

**SESSION: 2023-24** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

### Teaching Plan for Academic Year 2023-24 (Under Graduate)

### **Paper - Textile Craft**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co- Curricular Activity
1.	July	1 Week	2	Introduction to Crafts	
	·	2 Week	2	Crafts- meaning	
		3 Week	2	Classification of Craft	
		4 Week	2	Classification of Craft	Celebration of World Embroidery Day
2. August		1 Week	2	Craftsperson- role	Celebration on National Handloom Day
	2 Week 3 Week 4 Week		2	Craftsperson- responsibilities	Online Quiz
		3 Week	2	Philosophy – indigenous textile Craft	
		4 Week	2	Aesthetics - indigenous textile Crafts	
3. September		1 Week	2	Philosophy – contemporary textile Crafts	
3. September		2 Week	2	Aesthetics- contemporary textile Crafts	
		3 Week	2	Types of Textile Crafts-traditional	Lecture Series with workshop
		4 Week	2	Types of Textile Crafts- modern	Online Quiz
4.	October	1 Week	2	Materials - fiber, yarn	
		2 Week	2	fabric and products for textile Craft	
		3 Week	Week 2 Materials - fiber, yarn  Week 2 Materials - fiber, yarn  Week 2 Traditional needle craft techniques- Kashida -Kasuti  Week 2 Kantha, Chikankari  Week 2 Dyed, Painted and Printed Textiles-		
		4 Week	Week 2 fabric and products for textile Craft  7 Traditional needle craft techniques- Feek Kashida - Kasuti  Feek 2 Kantha, Chikankari  Feek 2 Cutch work, Phulkari		
5. November		1 Week	2		
		2 Week			
		3 Week	2	Bandhani	
		4 Week	2	Ikats	Online Quiz

6.	December	1 Week	2	Pichwais				
		2 Week	2	Ajrakh	Workshop			
		3 Week	2	Bagru	Online Ouiz			
		4 Week	2	Woven Saris of India-				
				Brocades Jamdani				
7.	January	1 Week	2	Baluchar,				
		2 Week	2	Paithani				
		3 Week	2	Chanderi, Kanjeevarams	Online Quiz			
		4 Week	2	Shawls and Carpets of various centres	, Kanjeevarams Online Quiz  nd Carpets of various centres Empowerment through Crafts Empowerment through Crafts C Empowerment through Crafts Quiz			
8.	February	1 Week	2	Cultural Empowerment through Crafts				
		2 Week	2	Economic Empowerment through Crafts				
		3 Week	2	Textiles crafts in national economy				
		4 Week	2	Textiles crafts in national economy				
9.	March	1 Week	2	Textiles crafts in national economy				
		2 Week	2	Revision				
		3 Week		Session End – Examination (Practical & The	ory)			
		4 Week		Bagru  Online Quiz  Woven Saris of India- Brocades Jamdani  Baluchar, Paithani  Chanderi, Kanjeevarams  Online Quiz  Shawls and Carpets of various centres  Cultural Empowerment through Crafts  Economic Empowerment through Crafts  Textiles crafts in national economy  Textiles crafts in national economy  Textiles crafts in national economy				

Ms Manju Barkhane Dr. Nandita Sarkar Incharge Principal

Dr Bhavana Sharma Head

### GOVT. M. H. COLLEGE OF HOME SCIENCE AND SCIENCE FOR WOMEN JABALPUR DEPARTMENT OF CLOTHING AND TEXTILE

**SESSION: 2022-23** 

Class: B.Sc. (H. Sc.) 3<sup>rd</sup> Year

### **Teaching Plan for Academic Year 2022-23 (Under Graduate)**

### **Paper – Textile Design & Fashion Illustration**

S. No.	Month &No. of working Days	Week	No. Of Period Per Week	Topic To Be Covered	Co- Curricular Activity
1.	July	1 Week	2	Meaning and importance of Design Importance of good taste in design	
		2 Week	2	Challenges and opportunities for design and designers	
		3 Week	2	Elements of Design Its Co-Relation Point	
		4 Week	2	Line	Celebration of World Embroidery Day
2.	2 Week 2		2	Colour	Celebration on National Handloom Day
		2 Week	2	Plane, Volume	Online Quiz
		3 Week	2	Space, Shape, Form	
		4 Week	2	Light, Texture. Pattern	
3.	September	1 Week	2	Principles of Design and Its Co-Relation	
		2 Week	2	Balance	
		3 Week	2	Proportion and scale	Lecture Series with workshop
		4 Week	2	Rhythm	Online Quiz
4.	October	1 Week	2	Emphasis	
		2 Week	2	Harmony	
		3 Week	2	Contrast	Online Quiz
		4 Week	2	Variety	
5.	November	1 Week	2	Law of area	
		2 Week	2	Line and its expressiveness	
		3 Week	2	Types and composition, Effect of lines to create rhythm and optical illusions	
		4 Week	2	Effect of lines to create rhythm and optical illusions	Online Quiz

6.	December	1 Week	2	Colour expression,						
		2 Week	Week 2 Colour wheel and its dimension Workshop Week 2 Colour wheel and its dimension Online Quiz Week 2 Colour mixing and colour system Week 2 Colour in different media Week 2 Colour in different media Week 2 Colour in fabric, texture and light Online Quiz Week 2 Pattern- Surface pattern and pattern group, Repeat pattern Week 2 Balance and proportion in human body: -average and fashion figures Week 2 Postures of male Week 2 Postures of female Week 2 Postures of children Week 2 Stylizing the croquis and its importance Understanding fabric textures and drapes. Week 2 Revision Week 2 Revision Week 3 Revision Week 4 Session End – Examination (Practical & Theory)							
		3 Week	2	Colour wheel and its dimension	Online Quiz					
		4 Week	2	Colour mixing and colour system						
7.	January	1 Week	2	Colour harmony and colour schemes						
		2 Week	2	Colour in different media						
		3 Week	2	Colour in fabric, texture and light	Online Quiz					
		4 Week	2							
8.	February	1 Week	2							
	·			body: -average and fashion figures						
		2 Week 2 Colour in different media 3 Week 2 Colour in fabric, texture and light Online Quiz 4 Week 2 Pattern- Surface pattern and pattern group, Repeat pattern  1 Week 2 Balance and proportion in human body: -average and fashion figures  2 Week 2 Postures of male Online Quiz  3 Week 2 Postures of female  4 Week 2 Postures of children  1 Week 2 Stylizing the croquis and its importance Understanding fabric textures and drapes.								
		3 Week	k 2 Colour wheel and its dimension Online Quiz k 2 Colour mixing and colour system k 2 Colour harmony and colour schemes k 2 Colour in different media k 2 Colour in fabric, texture and light Online Quiz k 2 Pattern- Surface pattern and pattern group, Repeat pattern k 2 Balance and proportion in human body: -average and fashion figures k 2 Postures of male Online Quiz k 2 Postures of female k 2 Postures of children k 2 Stylizing the croquis and its importance Understanding fabric textures and drapes. k 2 Revision Session End – Examination (Practical & Theory)							
		4 Week	2	Postures of children						
9.	March	1 Week	2	Stylizing the croquis and its						
				group, Repeat pattern  Balance and proportion in human body: -average and fashion figures  Postures of male  Postures of female  Postures of children  Stylizing the croquis and its importance Understanding fabric textures and drapes.						
				Understanding fabric textures and	our mixing and colour system our harmony and colour schemes our in different media lour in fabric, texture and light outtern- Surface pattern and pattern group, Repeat pattern ance and proportion in human dy: -average and fashion figures tures of male stures of female tures of children lizing the croquis and its oortance derstanding fabric textures and pes.  Revision					
			Understanding fabric textures and drapes.							
		2 Week	drapes.							
		3 Week		Session End – Examination (Practical & Tl	heory)					
		4 Week								

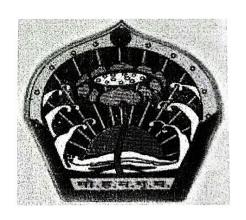
Dr. Rachana Agrawal
Incharge
Principal

Dr Bhavana Sharma Head

### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

### **DEPARTMENT OF MATHEMATICS AND COMPUTER**

### TEACHING PLAN FOR THE ACADEMIC YEAR 2022-23



KALPANA GOUR Faculty (Computer science)

# GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

## DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Teaching Plan for the Academic Year 2022-23

Class- B.Sc. I yr.(CS)
(Major+Minor)

<u>Paper-II</u> (Programming Methedologies & Data Structure)

<u>Faculty</u>-Kalpana Gour (Computer Science)

		2				μ			S.N.
3 Oct-22		Sep-22		M		Aug-22			Month
4	<b>Monthly Activity</b>	Monthly Activity 8				œ			AvailableP eriods
2	4	2		<b>Y</b>		2		per Week	No.of Peroids
Iterative Statements of C++ Introduction of Functions in C++ Functions with Default Arguments. Cal I-By-Value and Call-By-Reference Introduction to Arrays -Arrays in Functions, Multi- Dimensional Arrays.	Teachers Day celebration, CCE-1	Constants. Keywords. Casting of Data Types Operators Formatted and Console I/O ,Using Basic Header Files Simple Expressions in C++,Conditional Statements	Variables -Declaring. Defining and Initializing Variables. Scope of Variables,		Data Types. Variables, Constants, Operators and Basic I/O	Types of Programming Methodologies Introduction to C++ Programming	Introduction to Programming Algorithms, Notations. Design. Flowcharts,		Topics to be covered
COMPLETED		COMPLETED		T T		COMPLETED			Remark
				1-1-1-1				•	

Course Co-ordinator

Mulay H.O.D.

S.N. Month eriods per Veek    A	COMPLETED	Practical Exam B.Sc. I year- CS and CA			Apr-23	9
S.N. Month eriods per Week    Nov-22		Sessional		nly Activity	Mont	
S.N. Month eriods per Week    A		Language				
S.N. Month eriods per Week    Nov-22		_	1	•	C7-101AI	-
S.N. Month eriods per Week    Nov-22	0		<b>.</b>	m	Mar 22	•
Nov-22  Monthly Activity  Monthly Mo		Sorting Methods				
Month eriods per Week    Nov-22	10	CCE-4		hly Activity	Mont	
Nov-22  Monthly Activity  Monthly Activity  Monthly Activity  Monthly Activity  Janurary2023  Feburary2023  Periods  Structures in C++  Unions - Declaration and Initialization  Strings , Searching Algorithms  CCE-2  Algorithm Specification ,Array  Linked List  Stack  Queue  Queue  Types of Queue  Operations on queue  Trees - Types of Trees  Search Trees  CCE-3  Heap  Graphs  Feburary2023  Rashing  Free Week  Structure - Basic concepts  Algorithm Specification ,Array  Linked List  Stack  Types of Queue  Graphs  Graphs  CCE-3  Heap		Hash Functions, Overflow Handling				
Month eriods per Week    A		Hashing	,	•	epularyzoza	
Month eriods per Week  Nov-22 7 2 Structures in C++ Unions - Declaration and Initialization  Strings , Searching Algorithms CCE-2  Monthly Activity File Handling Data Structure - Basic concepts Algorithm Specification ,Array Linked List Stack  Monthly Activity Queue Types of Queue Trees - Types of Trees Search Trees  Monthly Activity Heap  Monthly Activity Heap	3	Graphs	<b>.</b>	<b>xo</b>	ahuran/2023	7
Month eriods per Week  Nov-22 7 2 Unions - Declaration and Initialization  Monthly Activity File Handling Dec-22 8 2 Algorithm Specification ,Array Linked List Stack  Monthly Activity Queue Janurary2023 10 2 Operations on queue  Monthly Activity Search Trees Search Trees  CCE-2  Algorithm Specification ,Array Cueue Types of Queue Operations on queue Search Trees CCE-3		Неар				
Month eriods per Week  Nov-22 7 2 Structures in C++  Nov-22 7 2 Unions - Declaration and Initialization  Strings , Searching Algorithms  CCE-2  Algorithm Specification ,Array  Linked List  Stack  Monthly Activity  Queue  Janurary2023 10 2 Operations on queue  Trees - Types of Trees  Search Trees  Search Trees		CCE-3		thly Activity	Mon	
Month eriods per Week  Nov-22 7 2 Structures in C++  Nov-22 7 2 Unions - Declaration and Initialization  Strings , Searching Algorithms  CCE-2  Pile Handling Data Structure - Basic concepts Linked List Stack  Monthly Activity  Queue Types of Queue  Operations on queue Trees - Types of Trees		Search Trees				
Monthh eriods per Week  Nov-22 7 2 Structures in C++ Unions - Declaration and Initialization Strings , Searching Algorithms  Dec-22 8 2 Algorithm Specification ,Array Linked List Stack  Monthly Activity Queue  Types of Queue  Operations on queue  Operations on queue		Trees - Types of Trees				
Month eriods per Week  Nov-22 7 2 Structures in C++  Nov-22 8 Peroids per Week  Structures in C++  Unions - Declaration and Initialization  Strings , Searching Algorithms  CCE-2  File Handling Data Structure - Basic concepts Algorithm Specification ,Array Linked List Stack  Queue  Types of Queue	CO	Operations on queue	2	10	Janurary2023	6
Month     eriods     Peroids per Week       Nov-22     7     2     Structures in C++ Unions - Declaration and Initialization Strings , Searching Algorithms       Monthly Activity     File Handling Data Structure - Basic concepts       Dec-22     8     2     Algorithm Specification ,Array Linked List Stack       Monthly Activity     Queue		Types of Queue				
Month eriods per Week  Nov-22 7 2 Structures in C++ Unions - Declaration and Initialization  Strings , Searching Algorithms  CCE-2 File Handling Data Structure - Basic concepts Algorithm Specification ,Array Linked List Stack  Monthly Activity  Stack		Queue				
Month eriods per Week  Nov-22 7 2 Unions - Declaration and Initialization Strings , Searching Algorithms CCE-2  Data Structure - Basic concepts Linked List  Stack  Peroids				thly Activity	Mon	
Month eriods per Week  Nov-22 7 2 Strings , Searching Algorithms  Monthly Activity File Handling  Dec-22 8 2 Algorithm Specification ,Array  Per Week  Structures in C++ Unions - Declaration and Initialization  CCE-2  Algorithm Specification ,Array  Linked List		Stack				
Month eriods per Week  Nov-22 7 2 Structures in C++  Nonthly Activity Strings , Searching Algorithms  CCE-2 8 2 Algorithm Specification ,Array		Linked List				
Month eriods per Week  Nov-22 7 2 Unions - Declaration and Initialization  Monthly Activity File Handling  Data Structure - Basic concepts	COMPLETED	Algorithm Specification ,Array	2	<b>∞</b>	Dec-22	5
Month eriods per Week  Nov-22 7 2 Structures in C++ Unions - Declaration and Initialization  Strings , Searching Algorithms  File Handling  File Handling		Data Structure - Basic concepts				
Month eriods per Week  Nov-22 7 2 Unions - Declaration and Initialization  Monthly Activity CCE-2  Monthly Activity CCE-2		File Handling				
Month eriods per Week  Nov-22 7 2 Strings , Searching Algorithms		CCE-2		thly Activity	Moi	
Month eriods Peroids per Week  Nov-22 7 2 Unions - Declaration and Initialization		Strings , Searching Algorithms				
Month eriods Peroids per Week Structures in C++	COMPLETED	Unions - Declaration and Initialization	2	7	Nov-22	4
Month eriods Peroids per Week		Structures in C++				
Month eriods Peroids		<i>x</i>	per Week			
	7	Chica to be covered		eriods	Month	S.Z.



Course Co-ordinator

H.O.D.

### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2022-23

### Teaching Plan for the Academic Year 2022-23

Class- B.Sc. I yr.(CS)
(Major+Minor)

Paper-II (Programming Methedologies & Data Structure)

Faculty-Kalpa (Computer S

					Γ								-	-	-		-	T		U.N.
						2								1						
Mont		000000	October 22-		Mon			September 22-		Mor				August 2022-						Month
<b>Monthly Activity</b>	rionthly Activity					<b>∞</b>				<b>Monthly Activity</b>	11						Periods			
		_	4					4						4				per Week	Peroids	No.of
GRABA CELEBERATION	To create a Star pyramid structure	Check given string is palindrome or not.	Print digits of entered number in reverse order.	Check given string is palindrome or not	Teachers Day celebration, CCE-1	Finding the roots of a Quadratic Equation.	Find factorial of a given number.	To print table of any number.	Print Fibonacci series.		Check whether a given numbers is even or odd.	Find area of a circle, rectangle, square using switch case.	- 108 am to swap the contents of two validaties	Withing recursive programs.	Use functions and parameter passing in functions,	operators) and control structures.	To learn use of selection (if, switch, conditional			PRACTICALS
	COMPLETED						COMPLETED	COMBLETED						COMPLETED		•				Remark



Course Co-ordinator



	Practical Exam B.Sc. I year- CS and CA			April2023-	9
		/ity	<b>Monthly Activity</b>	Mo	H
COMPLETED	Sessional	t	4	March2023-	œ
	Revision		•		,
	CCE-4	/ity	<b>Monthly Activity</b>	Mo	
	binary number.	7			
	Convert decimal (integer) number into equivalent				
COMPLETED	Reverse of String	4	<b>∞</b>	Feburary2023-	7
	Given number is prime or not.				
	Calculate the Lowest Common Multiple (LCM) of Two N				
	Sports Day, Educational Tour	ity	<b>Monthly Activity</b>	Mo	
	Find the Smallest and Largest Element in an Array				
2011	To Calculate the Sum of Elements in an Array.				
COMBLETED	Print Floyd's Triangle	4	10	Janurary2023-	6
	Extra Variable				
	Swap the Values of Two Variables Without Using any				
	CCE-3	ity	<b>Monthly Activity</b>	Mo	
	Program for Selection sort.				
	Program for Bubble sort.				
COMPLETED	Program for Binary search	4	10	December22-	G
	Program for Linear search.				1
	Find largest element from an array.				
	Diwali Fest, CCE-2	ity	<b>Monthly Activity</b>	Mo	
	Input N numbers, add them and find average.				
COMPLETED	A program for traversing an Array	4	ъ	November22-	4
	To create a number pyramid steucture				
		per Week		Days	
		Peroids	Periods	of working	S.N.
	Topics to be covered	No.of	Available	Month & No	
Remark					



H.O.D.

### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Teaching Plan for the Academic Year 2022-23

Class- B.Sc. II yr.(CS)
(Major)

Paper-I (Computer Networks & Information Security)

Faculty-Kalpana Gour (Computer Science)

	GRABA CELEBERATION		Monthly Activity	M <sub>0</sub>	
	Switching Techniques				
	Data Link Protocols, Network Devices & Drivers	^	œ	Oct-22	ω
COMPLETED	Service Provided to Network Layer	,	)		
	Data Link Layer				Ī
	Teachers Day celebration, CCE-1		<b>Monthly Activity</b>	Mc	
	4G & 5G technology.				
	Common concept – Cells, handoff, paging; 1G, 2G, 3G,	10		•	
COMPLETED	Cellular Network	2	10	Sep-22	2
	Wireless Transmission				
	pairs, coaxial cable , Fiber Optics				
	Physical Layer :Guided Transmission Media : Twisted				
			<b>Monthly Activity</b>	Mo	
	Types of computer network				
	TCP/IP, Critique of the OSI and TCP/IP reference models	^	œ	Aug-22	-
COMBLETED	Policy, Legal & Social Issues,Reference Model; OSI,	,	)		
	network,Network Technology.				
	Introduction to Computer Network ,Use of computer				
		per Week			
		Peroids	eriods		
Remark	Topics to be covered	No.of	AvailableP	Month	S.N.



Mundoels H.O.D.

**Course Co-ordinator** 

	Practical Exam B.Sc. II year- CS and CA			Apr-23	9
	Sessional		Month Activity	Мо	
	Cryptographic algorithms, Cryptographic tools				
COMPLETED	Scanning and Analysis Tools	2	4	Mar-23	<b>∞</b>
	Security Technology : Firewalls				
	CCE-4		<b>Monthly Activity</b>	Moi	
	Trojans.				
	Malware: Worms, Virus, Spams, Adware, Spyware,				
	Intruders and Hackers	,	0	repuraryzuza	`
COMPLETED	Phishing Attacks, E-mail threats, Web- threats,	J	0		1
	Vulnerability and Threats:				
	Overview of Security Threats and Vulnerability				
	CCE-3		Monthly Activity	Mo	
	Non-Repudiation.				
	Principles of security and attack. Security Goals				,
COMPLETED	Fundamentals of network and information security	2	7	Janurary2023	6
	Fundamentals of network				
	Network Security and Information Security:				
			<b>Monthly Activity</b>	Mo	
	Streaming audio and video, Basics of Wi-Fi				
	Application layers: DNS, SMTP, POP, ftp, http.				
COMPLETED	Transport layers:Process – Process Delivery: UDP, TCP.	2	10	Dec-22	G
	Traffic management approaches				
	Broadcast Routing; congestion in network				
	CCE-2		<b>Monthly Activity</b>	Mo	
	Flooding, Distance Vector Routing				
	principle of shortest path algorithm,	,	(		
COMPLETED	Network Layer Issues, Routing Algorithm: Optimality,	J	n	Nov-22	4
		A TANAHA GAMA PARA PARA PARA PARA PARA PARA PARA P			
		per Week			
Remark	Topics to be covered	No.of Peroids	AvailableP eriods	Month	s. Z
				PRINCIPAL PROPERTY OF THE PROP	-



## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2022-23

### Teaching Plan for the Academic Year 2022-23

Class- B.Sc. II yr.(CS)
(Major+Minor)

Paper-II (Computer Networks & Information Security)

Faculty-Kalpana Gour (Computer Science)

Peroids er Week  Study of UTP network cable.  Study the color code of UTP cable. Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying. Penta scanning of cabling work  Knowledge of Structured Cabling and its components  O Patch Panel Rack Management O Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)  Teachers Day celebration, CCE-1  Study of Optical Fiber cable O Multimode & Single mode OFC cable  O Rules of OFC laying  COMPLETED  COMPLETED	GRABA CELEBERAT	<b>Monthly Activity</b>	Mon	
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Penta scanning of cabling work  Knowledge of Structured Cabling and its components  O Patch Panel Rack Management O Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)  Teachers Day celebration, CCE-1  Study of Optical Fiber cable O Different cores of OFC (6core, 12, 24 core) O Multimode & Single mode OFC cable				
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  scanning of cabling work  Knowledge of Structured Cabling and its components  o Patch Panel  Rack Management o Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)  Teachers Day celebration, CCE-1  Study of Optical Fiber cable o Different cores of OFC (6core, 12, 24 core)		•	October 22-	u
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Scanning of cabling work  Knowledge of Structured Cabling and its components  o Patch Panel  Rack Management o Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)  Teachers Day celebration, CCE-1  Study of Optical Fiber cable		1	Octoborna	J
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  scanning of cabling work  Knowledge of Structured Cabling and its components  o Patch Panel  Rack Management o Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)  Teachers Day celebration, CCE-1	Study of Optical Fiber cable			
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Penta scanning of cabling work  Knowledge of Structured Cabling and its components  O Patch Panel  Rack Management  O Network Rack (4U, 6U, 9U, 12U, 24U, 32U, 42U)	Teachers Day ce	<b>Monthly Activity</b>	Mor	
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  scanning of cabling work  Knowledge of Structured Cabling and its components  o Patch Panel  Rack Management				
Study of UTP network cable.  Study the color code of UTP cable. Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying. Penta scanning of cabling work  Knowledge of Structured Cabling and its components  o Patch Panel	Rack Management			
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  scanning of cabling work  Knowledge of Structured Cabling and its components		80	September22-	2
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Penta scanning of cabling work	Knowledge of Structured Ca			
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Penta scanning of cabling work		<b>Monthly Activity</b>	Moi	
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.  Shielding of n/w cable.  Rules of UTP laying.  Penta	scanning of cabling work		A - AND THE REAL PROPERTY AND THE PROPERTY AND T	
Study of UTP network cable.  Study the color code of UTP cable.  UTP n/w cable.  Shielding of n/w cable.	Rules of UTP laying.			
Study of UTP network cable.  Study the color code of UTP cable.  Category of UTP n/w cable.			o i	
Study of UTP network cable. Study the color code of UTP cable.		:	August 2022-	<b></b>
	Study the color code of UTP			
er Week	Study of UTP network cable.			
Peroids	per Week			
	Peroids	Periods		
No.of PRACTICALS Remark		Available	Month	S.Z.



**Course Co-ordinator** 



	Practical Exam B.Sc. II year- CS and CA			April2023-	9
			The second secon	NIA!	
		<	Monthly Activity	Mo	-
	Sessional	t	4	March2023-	œ
COMPLETED	Revision	<b>.</b>	•		,
	CCE-4	Y	<b>Monthly Activity</b>	Mo	
	o Implementation of Subnetting in Class A, b and C				
COMPLETED	<ul> <li>Configure Dynamic routing using packet tracer.</li> </ul>	4	œ	Feburary2023-	7
	o Ping between 2 systems using IPv6				
	Sports Day, Educational Tour	Y	<b>Monthly Activity</b>	Mo	
	o Connect the computers in Local Area Network.				
	o Installation of ftp server and client.				
COMPLETED	o Implementation of file and printer sharing.	4	10	Janurary2023-	6
	Configuration / Management of Local Area Network	1			
	Mathematics Day Celebration, CCE-3		Monthly Activity	Mo	
	RJ45 NETWORK SPLITTER ADAPTER 2-way.				
200	Multimeter	4	5		(
COMBIETED	o Wire Stripping and Cable Cutter	4	10	December 22-	ر.
	o Nose plier				
	${\sf CCE}_2$		Monthly Activity	Mo	A CONTRACTOR OF THE PERSON OF
	o Punching Tool				
COMPLETED	o Crimping Tool	4	CT.	November22	۵
	Use of tools				
				Days	
		per Week		of working	ÇS Z
9	i opros so na opratav	Peroids	Periods	Month & No.	:
Romark	Topics to be covered	No.of	Available		



H.O.D.

# GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

# DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Teaching Plan for the Academic Year 2022-23

Class- B.Sc. III yr.(CS) (Old Course)

Paper-I (Operating System Concepts)

Faculty-Kalpana Gour (Computer Science)

prevention , ogical and COMPLETED	Physical address Virtual Memory: demand paging Page replacement algorithms				
ntion ,	physical address Virtual Memory: demand paging				
ntion ,	physical address				
ntion ,		u	00	Oct-22	ω
vention ,	Memory Management: address binding, logical and	,	)	}	,
vention ,					
	Deadlocks - definition , avoidance , pre				
ということは、一般の一般の一般の一般の一般の一般の一般の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の一個の	Traning		MORALLY ACTIVITY	Mo	
ys	Teachers Day celebration, CCE-1, Python 6 Days				
	Scheduling criteria, Scheduling algorithms:				
	Process life cycle, operations, on processes,				
	states, PCB,	ı	Ţţ	Sep-22	_
ocess COMPLETED	<b>Process Management: Concept of process, process</b>	U	\$		,
	I/O, memory and CPU.				
ection of	Operating system services, system calls, protection of				
	Workshop on Networking for CS & CA Ist Year		<b>Monthly Activity</b>	Mo	
	Process Control & Real time Systems		16		
	<b>Operating Systems for Personal Computers</b>				
COMPLETED	Types of Operating Systems	ω	10	Aug-22	1
	History and Evolution of OS, Basic OS functions .				
	Introduction to Operating System				
		per Week			
		Peroids	Periods	Month	S.N.
Remark	Topics to be covered	No.of	Available		



**Course Co-ordinator** 

John H.O.D.

P. E.
Working with Linux: KDE and Gnome graphical
Threats and goals, penetration attempts.
Authentication, protection and access controls.
Dedicated devices, shared devices. Security and
Disk space management , Disk scheduling algorithms
Storage Management : Disk organization, Directory



Course Co-ordinator

H.O.D.

# GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

# DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Teaching Plan for the Academic Year 2022-23

Class- B.Sc. III yr.(CS) (Old Course)

Paper-I (Operating System Concepts)

Faculty-Kalpana Gour (Computer Science)

	CCE-2		<b>Monthly Activity</b>	Mont	
	Check whether a given numbers is even or odd.				L
COMPLETED	Find factorial of a given number.	ω	6	November22-	4
	To print table of any number.	T = -			
	GRABA CELEBERATION		<b>Monthly Activity</b>	Mon	
	To create a Star pyramid structure				
COMPLETED	To create a number pyramid steucture	ω	7	October22-	w
	Shell scripting				
	Teachers Day celebration, CCE-1, Python 6 Days Traning		<b>Monthly Activity</b>	Mon	
	Vi editor				
COMPLETED	Introduction to Shell	ω	00	September22-	2
	Introduction to Linux terminals				•
			<b>Monthly Activity</b>	Moi	
	User mode commands				
	File permission commands				
COMBIETED	Directory commands	ω	9	August 2022-	М
	Introduction to Linux commands				
		per Week			
		Peroids	Periods		
Remark	PRACTICALS	No.of	Available	NO.	:



**Course Co-ordinator** 



				•	
	Practical Exam B.Sc. III year- CS and CA			April2023-	9
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<b>Monthly Activity</b>	Mo	
	Sessional	u	4	March2023-	00
COMPLETED	Revision	J			
	CCE-4		<b>Monthly Activity</b>	Mo	,
					•
COMPLETED	Find Factorial of given number using while Loop.	w	7	Fehirary2023-	7
	Print all Even and Odd numbers from 1 to 10.				
	Sports Day, Educational Tour		Monthly Activity	Mo	
	Print half Pyramid using "*".			7	,
COMPLETED	Print inverted pyramid using " * "	w	10	lanurary2023-	ת
	Print Floyds Triangle				
	CCE-3		<b>Monthly Activity</b>	Mo	
	Print Table of given number.				
	Swap two numbers using third variable.				
COMPLETED	Find maximum number	ω	10	December22-	G
	Find area of a circle, rectangle, square using switch case.				
				Days	
		per Week	0.000	of working	S.N.
Remark	lopics to be covered	No.of	Periods	Month & No.	
,			A		



Course Co-ordinator

H.O.D.

### GOVT. M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JABALPUR (M. P.)

Session : 2023-24

TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)

Class: B.Sc. I year (cs)

Paper : I (Computer System Architechture)

Faculty Name: Mrs. Pragati Patel

S.N.	Month - No. of Working days	No. of period per month	Topics to be covered	Remark
1	Aug-25	8	Fundamentals of Digital Electronics, Logic Gates, Boolean	
			Algebra, Map Simplification, Combinational Circuits,	
			Sequential Circuits	Completed
2	Sep-23	8	Basic Computer Organization Instructions, Computer	Completed
			Registers, Design of Basic Computer	
3	Oct-22	7	Instructions ,Register Transfer and Micro operations	Completed
4	Nov-19	5	Processor and Control Unit, Pipelining	Completed
5	Dec-25	10	Memory and I/O System ,Data Transfer Schemes, Memory	/
			Hiererchy	
6	Jan-25	7	Parallelism: Meaning, types of parallelism, introduction to	
			Instruction-level-parallelism, Parallel processing.	1
			Flynn's classification, Hardware multithreadin	g
			Introduction, types, advantages and applications. Multicore	
			processors: Introduction, advantages, difference from	n
			multiprocessor.	
7	Feb-25	7		
1 1	100 23		Indian Contribution to the field: Contributions of reputed	1
			scientists of Indian origin, Multicore-processors:	1
			Introduction, advantages, difference from multiprocessor.	1
8			Parallel Computing Projects of India PARAM, ANUPAM,	
8			FLOSOLVER, CHIPPS etc. Other relevant contri tors and	
	Mar-25	6	contributions.	



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### GOVT. M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JÀBALPUR (M. P.)

Session: 2023-24

### TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)

Class: B.Sc. II year (cs)

Paper: I (Computer Networks & Information Security)

Faculty Name: Mrs. Pragati Patel

S.N.	Month - No. of Working days	No. of period per month	Topics to be covered	Remark
1	Aug-25	8	Use of computer network, Types of computer network,network technology, Reference model- OSI model	
				completed
2	Sep-23	8	Guided Transmission Media ,Wireless Transmission, Cellular Network , paging (1G , 2G ,3G ,4G ,5G Technology)	completed
3	Oct-22	7	Service Provided to Network Layer: Framing, Flow and error control, Error detecting codes, Error correcting codes.	
-	N 10		D. I. I. D. d. L. C. Salin Tarkein	completed
4	Nov-19	5	Data Link Protocols, Switching Techniques,	completed
5	Dec-25	7	Network Devices & Drivers ,Network Layers Issues ,Routing Algorithm ,virtual circuit network ,Application Layers Streaming audio and video	
6	Jan-25	9	Network Security and Information Security, Overview of security ,Vulnerablility and Threats ,Phishing attacks Email threats	
7	Feb-25	9	Security Technology: Firewalls, Intrusion detection and prevention systems, Scanning and analysis Tools: Biometric access controls, Cipher methods, Cryptographic algorithms, Cryptographic tools, Protocols for secure communication	
8	Mar-25	9	Computer and cyber crimes, Cyber laws, Introduction to It laws and other crime, Recent ammnendments, Security technology	



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### GOVT. M. H. COLLEGE OF HOME SC. & SCIENCE FOR WOMEN ÂUTONOMOUS JÀBALPUR (M. P.)

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### TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)

Class: B.Sc. III year (cs)

Paper: I (Operating System)

Faculty Name: Mrs. Pragati Patel

S.N.		No. of period per month	Topics to be covered	Remark
1 11	Month - No. of Working days Aug-25	9	Introduction to Operating System, Functions of os, Resource	
1	rug 25		Abstraction, Multiprogramming, Time Sharing workstation,	
			Process management	completed
1	Sep-23	6	Process Scheduling ,Deadlock ,Deadlock Handling	completed
4	Зер-23	-	Approaches	
<u> </u>	Oct-22	8	Memory management, Paging File Management, Page	
3	OC1-22	Ü	Replacement Algorithm ,Demand Paging	completed
$\vdash$	Nov-19	9	File Management, types of file system, allocation methods,	
	100-19		Disk Management, Disk Scheduling ,Security threats	
				completed
4	Dec-25	8	Linux Administration ,Basics commands,Text Editors.	
5	Dec-23	J	Managing multiple process, Managing user accounts .Group	
	Jan-25	8	Permissions :adding and removing permissions ,Package	
6	Jan-23	· ·	installation	
	F-1- 25	9	Shell Programming: Types of shell, Functions, I/O	
7	Feb-25	9	Redirection and piping, Decision making ,Loop Control	
			Automation and Exception Handling Android operating	
8	Mar-25	•	system, Indian contribution to the field,	

Faculty

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### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

### DEPARTMENT OF MATHEMATICS AND COMPUTER

### TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24



KALPANA GOUR
Faculty (Computer science)

# DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

Class- B.Sc. I yr.(CS)
(Major+Minor)

Paper-II (Programming Methedologies & Data Structure)

Faculty-Kalpana Gour (Computer Science)

### Teaching Plan for the Academic Year 2023-24

many N				C	
	Dimensional Arrays.			Port	
	Introduction to Arrays -Arrays in Functions, Multi-			,	
COMPLETED	Call-By-Reference	^	`	W.D23	u
	Functions with Default Arguments. Cal I-By-Value and		ı	October23-	J
	Introduction of Functions in C++				
	Iterative Statements of C++				
	Teachers Day celebration, CCE-1		Month Activity	M	
	Simple Expressions in C++,Conditional Statements				
	Formatted and Console I/O , Using Basic Header Files		×		
COMPLETED	Constants. Keywords. Casting of Data Types Operators	2	000	W.D24	2
		)	,	September23-	•
	Variables.Scope of Variables,				
	Variables -Declaring. Defining and Initializing				
			Month Activity	M	
	1/0				
	Data Types. Variables, Constants, Operators and Basic	ì			
	Introduction to C++ Programming			W.D25	
COMPLETED	Types of Programming Methodologies	2	9	August 2023-	<b>L</b>
	Algorithms, Notations. Design. Flowcharts,				
	Introduction to Programming				
		per Week		Days	
		Peroids	Periods	of working	
Remark	Topics to be covered	No.of	Available	Month & No.	S.N.

	Sessional	tv	Month Activity	<b>Z</b>	
	Language				
	Innovations in India, origin of Julia Programming			W.D	
	Indian Contribution to the field:	2	4	March2024-	<b>∞</b>
	Sorting Methods				
	CCE-4	ty	<b>Month Activity</b>	3	
	Hash Functions, Overflow Handling				
	Hashing	•	(	W.D	,
	Graphs	<b>-</b>	<b>x</b>	Feburary2024-	7
	Неар				
		ty	<b>Month Activity</b>	3	
	Search Trees				
	Trees - Types of Trees				
	Operations on queue	2	10	W.D26	6
	Types of Queue			Janurary2024-	
	Queue				
	CCE-3	ty	<b>Month Activity</b>	3	
	Stack				
	Linked List			;	
	Algorithm Specification , Array	2	10	W D -25	5
	Data Structure - Basic concepts			December 23-	
	File Handling				
	Diwali Fest, CCE-2	ty	<b>Month Activity</b>	¥	
	Strings, Searching Algorithms				
COMPLETED	Unions - Declaration and Initialization	2	5	W D -18	4
	Structures in C++			-Ecrodmonol	
		per Week		Days	
Kemark	opics to be covered		Periods	Month & No. of working	s.z
	Tonion 40 Fo possession		14		



Course Co-ordinator



# DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

Class- B.Sc. II yr.(CS)
(Major+Minor)

Paper-II (Object Oriented Programming with Java)

<u>Faculty</u>-Kalpana Gour (Computer Science)

### Teaching Plan for the Academic Year 2023-24

	GRABA CELEBERATION		<b>Month Activity</b>	Z	
	Constructors – definition and types				
	Class Members				
00000	Adding Methods in class, creating Objects, Accessing	ı	(	W.D23	,
COMBLETED	Class - Defining a Class, Adding Variables	,	<b>x</b>	October23-	μ ——
,	Jump in Loops, Labeled Loops.				
	Loops – While Statement, Do Statement, For Statement,				
	Teachers Day celebration, CCE-1		<b>Month Activity</b>	3	
	Decision Making Statements in Java				
	Precedence of Arithmetic Operators				
	Conversions in Expressions	ı	į	W.D24	ı
COMPLETED	Arithmetic Expressions – Evaluation of Expression, Type	2	10	September23-	<b>y</b>
	Operators in Java		Ŋ		
	Java Basics – Constants , Variables, Data Types				
			<b>Month Activity</b>	M	
	Java Program Structure				
	Difference between Java ,C & C++	8)			
COMPLETED	Introduction to JAVA	2	<b>∞</b>	W D -25	1
	Applications of OOP.			August 2023	
	OOPS – Object Oriented Paradigm, Benefits of OOP,				
		per Week		Days	1
		Peroids	eriods	of working	
Remark	Topics to be covered	No.of	AvailableP	Month & No.	S.N.





		∞					7					6									s								4		S.N.	2
Mo	W.D	March2024- W D -		M		W.D	Feburary2024-		M			W.D26	1202/2024			3					W D -25	December 23-				3		W.D18	November23-		of working Days	Month & No.
Month Activity		4		Month Activity		·	<b>x</b>		Month Activity			7				Month Activity			=	1 2 38 <sup>8</sup> 3	10					<b>Month Activity</b>			'n		GIIGGS	oriods .
		2				•	>					2									2							•	J		per Week	Deroide
Sessional	Interactive Input and Output other Stream Classes.	Handing Primitive Data Types	Using the File Class, Input / Output Exceptions	CCE-4	Other Useful I/O Classes	Character Stream Classes, Using Streams	Stream Classes, Byte Stream Classes	Concept of Stream		Ellipses, Drawing Arcs, Drawing Polygons, Line graphs	The Graphics Class – Lines and Rectangles, Circles and	More About HTML Tags, Getting Input from user	Applets	More About the Applet tag - Passing Parameters to	Preparing to Write Applets	CCE-3	Handling Code	Types of Errors – Exceptions, Syntax of Exception	Priority.	Using Threads Methods, Threads Exceptions, Threads	Life Cycle of a Thread	Creating Threads, Stopping and Blocking a Threads,	Java API Packages	Interfaces, Implementing Interfaces.	Wrapper Classes. Defining Interfaces, Extending	Diwali Fest, CCE-2	Classes	Final Classes, Finalize Methods, Abstract Methods and	Inheritance	Methods Overloading, Nesting of Methods.		
																												מסואוו נבונט	COMPLETED			



# DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

Class- B.Sc. III yr.(CS)
(Major+Minor)

Paper-II (Programming with Python)

Teaching Plan for the Academic Year 2023-24

Faculty-Kalpana Gour (Computer Science)

Month Activity			3 W.D23 8 2	October23-		Month Activity		W.D24	2   September23-   8   2		Month Activity			W.D25	1 August 2023- 10 2				_
GRABA CELEBERATION	Sets , difference, symmetric difference	Nested dictionaries, dictionary comprehension.	Dictionaries	Index, count, usage, use of tuples as a swap function		Teachers Day celebration, CCE-1	Tuples	Methods of List data structure	Pyhton Data Structures- List	Creating and executing .py scripts		Iteration of Pyhton	Conditionals Statements of Python	statements	Operators, flow of execution. Input and Output	Basic data types, variables, expressions, statements	Python Basics: Python interpreter, Python idle	ek	ro .
			COMPLETED					COMPLETED						COMPLETED	COARIETED				





	Sessional		<b>Month Activity</b>	3	
	Widget attributes				
	Tkinter module, creating simple GUI	2	4	W D -	80
	Event-driven programming paradigm			March2024-	
			<b>Month Activity</b>	3	
	Graphical user interfaces				
	creating table, insert, select, update, delete	ı	(	W.D	
	Importing sqlite, connecting to database	2	<b>x</b>	Feburary2024-	7
	Database & GUI Programming				
	CCE-4	1	Month Activity	3	
	The hierarchy of exceptions, Adding exceptions				
	Role of Exceptional Handling				
	Constructing packages	2	10	W.D26	6
	Modules: inbuilt modules			Janurary2024-	1
	Diamond problem solving technique of python				
	CCE-3	<b>Y</b>	Month Activity	3	
	Constructor, Destructor				
	Classes: Introduction				
	Classes, modules and exceptional handling:	2	10	W.D25	U
	Working with files read, write and append modes			December23-	
	Inbuilt Functions, using lambda functions				
	CCE-2		Month Activity	3	CONTRACTOR DE L'ACTURISTICS DE L'ACTURIS
	Functions & File Handling:				occurrent property and a
COMPLETED	Strings, String functions	2	6	W.D18	4
	Sets union, intersection, subset, superset			November23-	•
		per week		Days	
		Peroids	Periods	of working	S.N.
Remark	Topics to be covered	No.of	Available	Month & No.	



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# GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

# DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

### Teaching Plan for the Academic Year 2023-24

Class- B.Sc. I yr.(CS)
(Major+Minor)

Paper-II (Programming Methedologies & Data Structure)

Faculty-Kalpana Gour (Computer Science)

	GRABA CELEBERATION		<b>Monthly Activity</b>	Mor	
	To create a Star pyramid structure				
	Check given string is palindrome or not.	4	7	W.D23	ω
COMPLETED	Print digits of entered number in reverse order.		1	October23-	)
	Check given string is palindrome or not				
	Teachers Day celebration, CCE-1		<b>Monthly Activity</b>	Mor	
	Finding the roots of a Quadratic Equation.				
	Find factorial of a given number.		0	W.D24	^
COMPLETED	To print table of any number.	>	0	September23-	,
	Print Fibonacci series.			532	
			<b>Monthly Activity</b>	Moi	
	Check whether a given numbers is even or odd.				
	Find area of a circle, rectangle, square using switch case.				
COMPLETE	Program to swap the contents of two variables		;	W.D25	٠
COMBLETED	writing recursive programs.	>	1	<b>August 2023-</b>	•
	Use functions and parameter passing in functions,				
	operators) and control structures.				
	To learn use of selection (if, switch, conditional				
				9	
		per Week		Days	
		Peroids	Periods	of working	
Remark	PRACTICALS	No.of	Available	Month & No.	S.N.
		The state of the last of the l	-		



**Course Co-ordinator** 

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		(	œ				7						6						v					4			s.z.	
	- 1	W.D	March2024-	3			₩	Feburary2024-		M		44.020	W D -26	lanurany2024		Mo			W.D25	December23-		Mo		W D -18	November23-	Days	Month & No. of working	
TAILOURING MCCIAICA	onthly Activ		Δ.	<b>Monthly Activity</b>			00	•		<b>Monthly Activity</b>			10			<b>Monthly Activity</b>			10			Monthly Activity		5			Periods	Available
ity		-	<b>A</b>	ty			4			ľ			4			Υ			4					4		per week	Peroids	No.of
		Sessional	Revision	CCE-4	number.	Convert decimal (integer) number into equivalent binary	Reverse of String	Given number is prime or not.	Calculate the Lowest Common Multiple (LCM) of Two Nu		Find the Smallest and Largest Element in an Array	To Calculate the Sum of Elements in an Array.	Print Floyd's Triangle	Extra Variable	Swap the Values of Two Variables Without Using any	CCE-3	Program for Selection sort.	Program for Bubble sort.	Program for Binary search	Program for Linear search.	Find largest element from an array.	Diwali Fest, CCE-2	Input N numbers, add them and find average.	A program for traversing an Array	To create a number pyramid steucture			Topics to be covered
						7			=															COMPLETED				Remark



### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

Teaching Plan for the Academic Year 2023-24

Class- B.Sc. II yr.(CS) (Major+Minor)

Paper-II (Object Oriented Programming with Java)

Faculty-Kalpana Gour (Computer Science)

	GRABA CELEBERATION	,	Monthly Activity	Mon	
	To create a Star pyramid structure				
5	To create a Pascal Star pyramid structure			W.D23	
COMPLETED	Print digits of entered number in reverse order.	<b>A</b>	7	October23-	N
	Check given string is palindrome or not				
	Teachers Day celebration, CCE-1		<b>Monthly Activity</b>	Mor	
	Find sum & average of 10 no. using arrays.				
201111111111111111111111111111111111111	Find factorial of a given number.			W.D24	1
COMBIETED	Check whether it is even or odd.	4	<b>x</b> 0	September23-	<b>y</b>
	Print Fibonacci series.				
		<b>Y</b>	<b>Monthly Activity</b>	Moi	
	Display tables from 2 to 10.				
	Check if a number is prime or not				
COMPLETED	Factorial of number using command line argument	4	9	W.D25	1
	conditional operator.			•	
	Greater number between two numbers – using				
		per Week		Days	
		Peroids	Periods	of working	
Remark	PRACTICALS	No.of	Available	Month & No. Available	U.N.
					>



Course Co-ordinator

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Available No. of Periods Periods Periods per Week  8 4 To create a number pyramid steucture Reverse of a digit no. using array Display grade according to the marks obtained by the students. Single inheritance. Single inheritance. Wector Method overriding, Vector application Vector Methods application demonstrate  8 4 Merge two files into third file. To delete duplicate lines in text file. Find area of different shape with Method overloading Overloading  mothly Activity Convert given string into Uppercase and lowercase and get length of string using array. Use of multithreading Use of multithreading  CCE-4  Reverse of a digit no. using array CCE-2  Diwali Fest, CCE-2  Diwali Fest, CCE-2  CCE-3  Method overriding, Vector application CCE-3  CCE-3  CCE-3  Create a package Use of multithreading CCE-4  Reverse of a digit no. using array CCE-3  Method overriding to the marks obtained by the students. CCE-3  CCE-4  Reverse of a digit no. using array CCE-4	7		ity	<b>Monthly Activity</b>	Mo	
Available No. of Periods Periods Periods Periods Periods Periods Perolds Periods Periods Perolds Periods Perolds Periods Pervision Periods Pervision Periods Pervision Period Periods Pervision Period		Sessional	-	4	W.D	۰
Available No. of Periods Periods Periods Periods Periods Periods Peroids Periods Peroids Periods Peroids Periods Peroids Pervised Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students.  Single inheritance.  Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity CCP-3  Merge two files into third file.  To delete duplicate lines in text file. Find area of different shape with Method overloading  Onthly Activity Convert given string into Uppercase and lowercase and get length of string using array.  CCE-4  Onthly Activity Convert given string using array.  CONVECTOR TO BE COVETOR OF THE CO		Revision		`	March2024-	0
Available No. of Peroids Periods Periods Peroids per Week  8 4 To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  8 4 To create a number pyramid steucture Reverse of a digit no. using array Display grade according to the marks obtained by the students.  Single inheritance. Method overriding, Vector application demonstrate Vector Methods applicate lines in text file.  To delete duplicate lines in text file. Find area of different shape with Method overloading  Onthly Activity Convert given string into Uppercase and lowercase and get length of string using array.  Create a package  Use of multithreading		CCE-4	ty	nthly Activi	Mo	
Available No. of Peroids Periods Peroids per Week  8 4 To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  8 4 Single inheritance. Method overriding, Vector application demonstrate vector Methods application demonstrate  Onthly Activity CEE-3  Merge two files into third file. Find area of different shape with Method overloading  Convert given string into Uppercase and lowercase and get length of string using array.  Create a package		Use of multithreading				
Available No.of Periods Peroids per Week   To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading. Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application demonstrate Vector Methods application demonstrate  Merge two files into third file. Find area of different shape with Method overloading Convert given string into Uppercase and lowercase and get length of string using array.		Create a package	-	,	W.D	
Available No.of Periods Perolds per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading. Diwali Fest, CCE-2 Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity  Merge two files into third file. Find area of different shape with Method overloading Onthly Activity Convert given string into Uppercase and lowercase		and get length of string using array.	4	×	Feburary2024-	7
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading. Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity  Onthly Activity  Find area of different shape with Method overloading Onthly Activity  Onthly Activity  Ouverloading  To delete duplicate lines in text file. Find area of different shape with Method overloading		Convert given string into Uppercase and lowercase				
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity  Onthly Activity  Onthly Activity  Orge two files into third file. Find area of different shape with Method overloading.			ty	nthly Activi	Mo	
Available No. of Periods Periods Periods Periods Perolds per Week  8 4 To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading. Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity CCE-3  Merge two files into third file. To delete duplicate lines in text file. Find area of different shape with Method		overloading				
Available No.of Periods Peroids Peroids per Week    To create a number pyramid steucture   Reverse of a digit no. using array   Display grade according to the marks obtained by the students.   Single inheritance.   Method overriding, Vector application   Vector Methods application demonstrate   Onthly Activity   Merge two files into third file.		Find area of different shape with Method			W.D26	,
Available No.of Periods Perolds per Week   To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Merge two files into third file.  To create a number pyramid steucture Reverse of a digit no. using array Diwali Fest, CCE-2		To delete duplicate lines in text file.	4	×	Janurary2024-	ກ
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students. Single inheritance. Method overriding, Vector application Vector Methods application demonstrate  Onthly Activity CCE-3  Onthly Activity		Merge two files into third file.				
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students. Single inheritance.  Method overriding, Vector application Vector Methods application demonstrate		CCE-3	ty	nthly Activi	Mo	
Available No.of Periods Perolds per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Display grade according to the marks obtained by the students. Single inheritance. Single inheritance. Vector Methods application demonstrate				r		
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students. Single inheritance.  Method overriding, Vector application		Vector Methods application demonstrate				
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students. Single inheritance.		Method overriding, Vector application		·	W.D25	(
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by the students.		Single inheritance.	<b>4</b>	<b>x</b> 0	December23-	5
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Display grade according to the marks obtained by		the students.			u	
Available No.of Periods Peroids per Week  To create a number pyramid steucture Reverse of a digit no. using array Demonstrate function overloading.  Onthly Activity Diwali Fest, CCE-2						
Available No.of Periods Peroids per Week  To create a number pyramid steucture  Reverse of a digit no. using array  Demonstrate function overloading.		Diwali Fest, CCE-2	ty	nthly Activi	Mo	
Available No.of Periods Peroids per Week  To create a number pyramid steucture  Reverse of a digit no. using array		Demonstrate function overloading.				
Available No.of Topics to be covered Periods Peroids per Week To create a number pyramid steucture	COMPLETED	Reverse of a digit no. using array	4	<b>∞</b>	W.D18	4
Available No.of Topics to be covered Periods Peroids per Week		To create a number pyramid steucture			November23-	
Available No.of Topics to be covered Periods Peroids		ek	per Wee		Days	
Available No.of Topics to be covered		1s	Peroid	Periods	of working	S.Z
	Remark		No.of	Available	Month & No.	



## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

### DEPARTMENT OF MATHEMATICS AND COMPUTER

### Session-2023-24

### Teaching Plan for the Academic Year 2023-24

Class- B.Sc. III yr.(CS)
(Major+Minor)

Paper-II (Programming with Python)

Faculty-Kalpana Gour (Computer Science)

														_				
		u	,				2						<b>-</b>					S.N.
Mo		W.D23	October23-		Mo		W.D24	September23-		Mo		W.D25	August 2023-			Days	of working	Month & No.
<b>Monthly Activity</b>		,	1		Monthly Activity		σ	,		<b>Monthly Activity</b>			7				Periods	Available
			<b>.</b>					•		72			4			per Week	Peroids	No.of
GRABA CELEBERATION	To create a Star pyramid structure	To create a Pascal Star pyramid structure	Print digits of entered number in reverse order.	Check given string is palindrome or not	Teachers Day celebration, CCE-1	Find sum & average of 10 no. using arrays.	Find factorial of a given number.	Check whether it is even or odd.	Print Fibonacci series.		Display tables from 2 to 10.	Check if a number is prime or not	Factorial of number using command line argument	conditional operator.	Greater number between two numbers – using	•		PRACTICALS
			COMPLETED					COMPLETED					COMPLETED					Nellain





		'	<b>Monthly Activity</b>	оМ	
	Sessional		ŧ	W.D	œ
	Revision	4	•	March2024-	•
	CCE-4	/	Monthly Activity	Мо	
	Use of multithreading	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	Create a package		0	W.D	`
	and get length of string using array.	>	0	Feburary2024-	ı
	Convert given string into Uppercase and lowercase		g <sup>o</sup>		
			<b>Monthly Activity</b>	Mo	
	overloading				
	Find area of different shape with Method		C	W.D26	o
	To delete duplicate lines in text file.	2	0	Janurary2024-	n
	Merge two files into third file.				
	CCE-3		<b>Monthly Activity</b>	Mo	
		1			
	Vector Methods application demonstrate				
	Method overriding, Vector application	+	0	W.D25	U
	Single inheritance.	`	0	December23-	n
	the students.				
	Display grade according to the marks obtained by				
	Diwali Fest, CCE-2		<b>Monthly Activity</b>	Mo	
	Demonstrate function overloading.			V. D10	
COMPLETED	Reverse of a digit no. using array	4	00	W D -18	4
	To create a number pyramid steucture			November 23	
		per Week		Days	
		Peroids	Periods	of working	S Z
Remark	Topics to be covered	No.of	Available	Month & No.	
		,			-



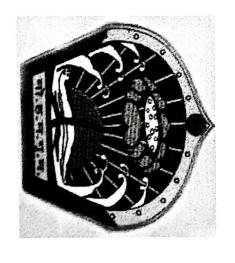
### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

# DEPARTMENT OF MATHEMATICS AND COMPUTER

TEACHING PLAN

FOR THE

ACADEMIC YEAR 2021-22



KALPANA GOUR Faculty (Computer science)

### DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2021-22

Class- B.Sc. II yr.(CS) (OLD COURSE) Teaching Plan for the Academic Year 2021-22

Paper-I (OBJECT ORIENTED PROGRAMMING CONCEPTS USING C++)

Faculty-Kalpana Gour (Computer Science)

	protected				
	accessing class members, keyword: public, private,				
	Classes and Objects: declaring classes and objects,				
COMPLETED	,precautions, library functions.	ω	<b>∞</b>	Nov-21	ω
	Inline functions, Functions overloading: principles				
	Arguments: value, address, reference.				
	Functions: main() function, parts of Functions, Passing				
			<b>Monthly Activity</b>	Mo	
	looping statements.				
	Control structures: Decision Making statements,				
	Referencing and dereferencing operators				
COMPLETED	operators, scope access operators.	ω	10	Oct-21	2
	Data types, constants, operators, precedence of	F			
	Tokens, Keyboard, Identifiers.				
	C ++ Declarations : Parts of C++ Program, types of				
			<b>Monthly Activity</b>	Mo	
	Formatted console I/0 operations.				
COMPLETED	Unformatted console I/O operations.	1 8	:40		
15 /09/2021,	Input and Output in C++: Pre-defined streams,	(	,		,
2021-22	Advantages and disadvantages of OOP's	u	٥	Sen-21	•
Begining of Session	concept of Object-oriented Programming,				
	Introduction to C++: Programming paradigms, Key				
		per Week			
		Peroids	eriods		
Remark	Topics to be covered	No.of	AvailableP	Month	S.N.





<b>∞</b>			7				6					20	U	n				17			_				S.N.		
Apr-22	Mor		Mar-22		Moi		Feburary2022		Mo				Jan-22	3.			Mo			Dec-21	Dec-21	9			Month		
	Monthly Activity		12		<b>Monthly Activity</b>		6		<b>Monthly Activity</b>				E	•			Monthly Activity				;				eriods	AvailableP	
			ω				ω						w	)						u	•			per Week	Peroids	No.of	
Practical Exam B.Sc. II & III year- CS and CA	SESSIONAL	REVSION	Formatted console I/O operations.	Unformatted console I/O operations.	CCE-2	Pure virtual functions.	Virtual function.	Dynamic(Late) Binding.		Polymorphism: static (Early) binding,	Array: declarations & initialization, arrays of classes.		Pointers: pointer declaration , pointer to class & object		multilevel hybrid, multipath , virtual base class.	Types of inheritance: single, multiple, hierarchical,	CCE-1	Constructors and Destructors ,Inheritance	functions,Operator overloading	Friend function, friend classes, overloading member	member variables and functions,	the class, member function outside the class, static	Defining member functions: member functions:	ambor function inside		Topics to be covered	
COMPLETED			COMPLETED				COMPLETED						COMPLETED	COMPLETED							COMPLETED					Nelliark	NA PA



### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2021-22

Teaching Plan for the Academic Year 2021-22

Class- B.Sc. II yr.(CS) (OLD COURSE)

Paper-I (OBJECT ORIENTED PROGRAMMING CONCEPTS USING C++)

Faculty-Kalpana Gour (Computer Science)

				Monthly Activity	No	
7 C S S S S S S S S S S S S S S S S S S		Person Class				
		Implement Student Class, Employ Class ,FruitClass,				
		Implement array with in a class.		12	Nov-21	ω
ETED —	COMPLETED	Concept of Copy Constructor.				
-		Concept of Paramaterized Constructor.				
		Concept of Constructor and Destructor.				
				Monthly Activity	Mo	
		Given number is palindrome or not.				
		Illustrate the use of friend function.				
		operation.				
FIED	COMPLETED	Program using switch case to perform arithmetic	2	<b>∞</b>	Oct-21	2
_		Find biggest among three numbers using class.				
		Find biggest among three numbers.		5 1		
		Demonstrate use of function overloading	40			
				Monthly Activity	Mol	
		Find the square root using inline function.				
		Illustrate the use of scope resolution operator.		2		
1	COMPLETED	Generate the Fibonacci series.	2	4	Sep-21	<b>-</b>
		Find the factorial of a given number				
		Find average of three numbers.				
			per Week			
			Peroids	Periods		
ark	Kemark	PRACTICALS	No.of	Available	Month	S.N.
Ļ	0					





	Practical Exam B.Sc. II & III year- CS and CA			Apr-22	<b>∞</b>
	Sessional		Monthly Activity	Monthly	
	Concept of Abstract class/Pure Virtual Function			,	
	Static member function.		00	Mar-22	7
COMPLETED	Illustrate the concept of Pointer to a Class.		•		
	Illustrate Virtual Class concept				
	CCE-2		<b>Monthly Activity</b>	Month	
	Illustrate the use of Default Constructor				
	Cube,Cylinder, Cone		(	Lebular Arorr	d
COMPLETED	Make Function overloading to find volume of	<b>&gt;</b>	ת	Echurary 2022	
	Find Average of 2numbers using Friend function.				
			<b>Monthly Activity</b>	Month	
	Find factorial using Class				
	Runtime polymorphism/Dynamic Binding/ Late binding,				
50	Demonstrate the use of function inside the class.	^	α	Januraryzuzz	U
COMBIETED	Square of a given namber asing minic and and	)	)		,
	Cause of a given number using Inline Function				
	Hybrid Inheritance, Hierarchical inheritance				
	Multilevel Inheritance				
	CCE-1		<b>Monthly Activity</b>	Mont	
	Single Inheritance, Multiple Inheritance.				
	Overload unary operator , binary operator				
	Average of three numbers using class.	•	;		
COMPLETED	Implement concept of friend function.	J	<del>,</del>	Dec-21	4
	Implement more than one Object of class.				
	Array of Object.				
	*	per Week		Days	
		Peroids	Periods	of working	S.N.
Remark	PRACTICALS	No.of	Available	Month & No.	





### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2021-22

Teaching Plan for the Academic Year 2021-22

Class- B.Sc. II yr.(CA) (OLD COURSE)

Paper-I (Internet, E-Commerce and Concept of OOPs)

Faculty-Kalpana Gour (Computer Science)

The second	-8		Monthly Activity	Mont	
	Call by value, Call by address, Call by reference		•		Ç,
	library functions.				
	Introduction to C++ ,Functions,inline functions, some				
COMPLETED	Advantages of OOPs, Features of OOPs	2	<b>∞</b>	Nov-21	ω
	Programming,				
	Programming, Procedural vs Object Oriented				
	Programming Paradigms, Concepts of Object Oriented				-
	CCE-1		<b>Monthly Activity</b>	Mon	
	transmission.				
	Electromagnetic spectrum, Radio transmission, Microwave				
	Comparison of fiber optics and copper wire				
	Cellular Network, Wireless Transmission	(	t	OC1-21	_
COMPLETED	Twisted pairs, coaxial cable, Fiber Optics	J.	<b>1</b>	0+31	ر —
	Transmission Medium: Guided & Unguided				
	switching, Packet switching.				
	Network topologies, Switching; Circuit switching, Message				
			Monthly Activity	Mor	All or
	Networks Software & Network Standardization				
	Classification of network				
		13	j	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	,
COMPLETED	Critique of the OSI and TCP/IP reference models	ω	<b>∞</b>	Sep-21	<b>-</b>
	Policy, Legal & Social Issues, Reference Model; OSI, TCP/IP,				
	network, Network Technology.				
	Introduction to Computer Network ,Use of computer				
		per Week			
		Peroids	eriods		
Zellaix	Topics to be covered	No.of	AvailableP	Month	S.N.
Damark					



Classes and Objects: Declaring classes and objects Class members (memberfunction and members data) Access Specifiers, declaring member function Access Specifiers, declaring member function Function overloading Constructor Constructor and Destructor Constructor with arguments, overloading constructor Types of constructor. Inheritance: Use of inheritance, multiple, hierarchical, hybrid Public inheritance, private inheritance CCE-2 Protected data with private inheritance Friend function, friend classes. Polymorphism Static (Early) binding, Dynamic(Late) Binding, Virtual function, pure virtual functions Sessional  Practical Exam B.Sc. II year- CS and CA  COMPLETED COMPLETED			<b>Month Activity</b>	Mo	
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance 2 neritance Late) Binding, nctions	Practical Exam B.Sc. II year- (			Apr-22	∞
classes and objects on and members data) nber function  /erloading constructor			Monthly Activity	Mon	
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance 2 neritance Late) Binding,	Sessional				
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance 2 neritance Late) Binding,	Virtual function, pure virtual functions	ω	00	Mar-22	`
classes and objects on and members data) nber function  verloading constructor  ritance  peritance	Static (Early) binding, Dynamic(Late) Bi				ı 
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance 2			<b>Monthly Activity</b>	Mor	
classes and objects on and members data) nber function  verloading constructor  nultilevel, multiple,  ritance  2 neritance	Polymorphism				
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance 2	Friend function, friend classes.	ω	6	Feburary2022	6
classes and objects on and members data) nber function /erloading constructor /ultilevel, multiple, ritance	Protected data with private inheritance				
classes and objects on and members data) nber function /erloading constructor nultilevel, multiple, ritance	CCE-2		<b>Monthly Activity</b>	Mor	
	Public inheritance, private inheritance	-			
	hierarchical, hybrid		3		
	Types of inheritance: single, multilevel, multiple,	,			
	Inheritance: Use of inheritance,	w	1	Janurary2022	رن س
	Types of constructor.			p1	
	Constructor with arguments, overload				
ers data)			<b>Monthly Activity</b>	Mo	
ers data)	Constructor and Destructor				
ers data)	Function overloading				
ers data)	Access Specifiers, declaring member furiction	ω	12	Dec-21	4
s: Declaring classes and objects	Class members (memberfunction and				
and objects	Classes and Objects: Declaring classes		: e:		
		per Week			
		Peroids	eriods	Month	V.Z.
Topics to be covered	Topics to be cover	No.of	AvailableP		:



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### GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.) DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2021-22

Class- B.Sc. II yr.(CA) (OLD COURSE)

Teaching Plan for the Academic Year 2021-22

Paper-I (Internet, E-Commerce and Concept of OOPs)

Faculty-Kalpana Gour (Computer Science)

	CCE-1	tivity	<b>Monthly Activity</b>		
	Illustrate the use of Scope Resolution Operator.				
	overload Binary (+) operator, Unary (++) operator.		•	17-A0N	u
COMPLETED	Find Square Root of number using Inline Function	J	1		, .
	Find the Square of a given number using Inline Function.				
		ivity	<b>Monthly Activity</b>		
	Implement concept of Copy Constructor, Default Constructor.				
	Implement concept of Constructor, Constructor Overloading.				
COMPLETED	Implement Array of Object ,more than one object of Class	•	c	000	١
	inheritance, Multilevel Inheritance.	J	ю	04-31	J
	Illustrate the concept of Multiple Inheritance, Hierarchical			3	
	Illustrate the concept of Single ,Hybrid Inheritance.				
		ivity	<b>Monthly Activity</b>		
	Find Biggest among 3 numbers using Class.				
	Implement Student Class, Person Class, Fruit Class. F18				
COMPLETED	Find Average of 2numbers using Friend function.	2	11	Sep-21	,
	Find factorial using Class.			! .	
	Implement concept of Friend Function.				
		per Week			
Remark	TACICALS	Peroids	Periods		
	DDACTICALS	No.of	Available	Month	S.N.





) r			2		ſ
				Apr-22	<b>∞</b>
	Practical Exam B.Sc. II year- CS and CA		Monthly Activity		
	Revision, Sessional				
	To add name in address poor.			-	
	10 Cleate e-limit account	2	<b>∞</b>	Mar-22	7
COMPLETED	To croate e-mail account & send e-mail.	)		4	
	To turn on and turn off automatic updates.		Molitina		
		Tivity	as a shiv Activity		
	To set and change compared manic.				
	- A shappe complifer name				
1	To identify IP address.			022	0
COMME	using Hierarchical Inheritance.	2	6	Feburary2	n
COMPLETED	Create Employee & Student class inherited from Person class				
	Driveto derivation	TIVITY	Montnly Activity		
	CCI-2				
	Illustrate concept of Call By value, Call By Address.				
	Concept of Abstract class/Pure Virtual function.		26		
	Sum of two numbers using Friend Function.		ė	74-110	U
COMPLETED	Number is Palindrome or not.	<b>.</b>	5	lan_22	п
	Highlight the concept of Destructor.				
	Implement concept of Parameterized Constructor.				
	Mathematics Day Celebration	livity	<b>Monthly Activity</b>		
	Illustrate Virtual Class concept.				
	Runtime polymorphism/Dynamic Binding/ Late binding				
	overloading		•		
COMPLETED	Find volume ofCube , Cylinder and Cone using Function	2	v	Dec-21	4
	Demonstrate use of Function overloading.				
7	Demonstrate the use of function inside the class.	-			
				Days	
		per Week		WOLVILLE	
		reroids	0.00	To the second	S.N.
Remark	Topics to be covered	0.0.0	Periods	No of	
		NO OF	Available	Month &	

Page 1 of 1

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

### DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Teaching Plan for the Academic Year 2021-22

Class- B.Sc. III yr.(CS)
(Old Course)

Paper-I (Operating System Concepts)

Faculty-Kalpana Gour (Computer Science)

	CCE-1	y	<b>Monthly Activity</b>	Мо	
	Page replacement algorithms				
	Virtual Memory: demand paging				
COMPLETED	physical address	u	œ	Nov-21	u
	Memory Management: address binding, logical and	,	•		,
	detection and recovery.				
	Deadlocks - definition , avoidance , prevention ,				
		Y	<b>Monthly Activity</b>	Mo	
	Scheduling criteria, Scheduling algorithms:				
	Process life cycle, operations, on processes,				
	states, PCB,	(	1	000	•
COMPLETED	Process Management: Concept of process, process	J.	14	Oct-21	<u> </u>
	I/O, memory and CPU.				
	Operating system services, system calls, protection of				
	Workshop on Networking for CS & CA Ist Year	Υ	<b>Monthly Activity</b>	Mo	
	Process Control & Real time Systems				
	Operating Systems for Personal Computers			2	
COMPLETED	Types of Operating Systems	ω	10	Sep-21	1
	History and Evolution of OS, Basic OS functions .				
	Introduction to Operating System		٠		
		per Week			
		Peroids	Periods	Month	S.N.
Remark	Topics to be covered	No.of	Available		





	Practical Exam B.Sc. III year- CS and CA			Apr-23	<b>∞</b>
	Sessional	<b>6</b> /	<b>Monthly Activity</b>	M	
	File security in Linux.				
	File Permission commands	U	o	Mar-22	7
COMBLETED	Linux commands, Linux Programs	u	•	:	ı
	Vi editor ,Shell script				
		Ŋ	<b>Monthly Activity</b>	Mo	
	Various types of shells				
	interface				
	Working with Linux: KDE and Gnome graphical	·	o	77-da-	σ
COMPLETED	Linux standard directories , Linux Kernel.	N	n	7-1-1-1	,
	Linux architecture, file system of Linux,				
	Linux: History and features of Linux				
		y	<b>Monthly Activity</b>	Mo	SCORE SC
	Threats and goals, penetration attempts.		5		
	Authentication, protection and access controls.				
COMPLETED	Security policies and mechanisms	ω	12	Jan-22	σ
COMPLETED	protection:				
	Dedicated devices, shared devices. Security and				
	CCE-2		<b>Monthly Activity</b>	Moi	
	Device Management				
	Disk space management, Disk scheduling algorithms	,	ż	000.61	
COMPLETED	structure	υ	5	Dec. 31	<u> </u>
	Storage Management : Disk organization, Directory				
		per Week			
		Peroids	Periods	Month	SZ
Remark	Topics to be covered	No.of	Available		4



H.O.D.

## GOVT. M.H. COLLEGE OF HOME SCIENCE & SCIENCE FOR WOMEN, JABALPUR (M.P.)

### DEPARTMENT OF MATHEMATICS AND COMPUTER

Session-2022-23

Class- B.Sc. III yr.(CS) (Old Course) Teaching Plan for the Academic Year 2021-22

Paper-I (Operating System Concepts)

Faculty-Kalpana Gour (Computer Science)

	CCE-1	ty	<b>Monthly Activity</b>	M	
	Check whether a given numbers is even or odd.				
COMPLETED	Find factorial of a given number.	2	6	Dec-22	4
J	To print table of any number.			z.	
		ty	Monthly Activity	Mo	
	To create a Star pyramid structure				
COMPLETED	To create a number pyramid steucture	2	7	Nov-22	ω
	Shell scripting				
		y	<b>Monthly Activity</b>	Mo	
	Vi editor				
COMPLETED	Introduction to Shell	2	00	Oct-22	2
	Introduction to Linux terminals				
		<b>Y</b>	<b>Monthly Activity</b>	Mo	
	User mode commands	× ×		1	
	File permission commands	r		Schotz	•
COMPLETED	Directory commands	J	o	Sep-22	٠
	Introduction to Linux commands				
		per Week			
		Peroids	Periods		
Remark	PRACTICALS	No.of	<b>Available</b>	Month	S.N.
Remark	DBACTICAL S	NO OF	vailable	<b>⊳</b> I	





	Practical Exam B.Sc. II & III year- CS and CA			Apr-22	<b>∞</b>
	Revision, Sessional		יאוסוונוווא אכנואונא	- Trione	+
	Secondaria dall'e wille Loop.		hly Activity	Mont	_
COMPLETED	Find Factorial of given number using while too	1			
	Print all Even and Odd numbers from 1 to 10.	2	7	Mar-22	7
			Monthly Activity	Mont	+
	Print half Pyramid using "*".				
COMPLETED	Print inverted pyramid using " * "	2	5	Len-77	_
	Print Floyds Triangle		<b>.</b>	E 22	<u>س</u>
	CCE-2		Monthly Activity	Non	
	Print Table of given number.				
	Swap two numbers using third variable.			1	
COMPLETED	Find maximum number	2	5	77-11bc	,
	Find area of a circle, rectangle, square using switch case.		5	33	л
		per Week		Days	
Remark	Topics to be covered	No.of Peroids	Periods	Month & No. of working	S.N.



H.O.D.

### GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE FOR WOMEN, JABALPUR (M.P.)



### **DEPARTMENT OF FOOD AND NUTRITION**

**SESSION: 2023-24** 

Class: B.Sc. (H.Sc.) I Year Paper: Food and Nutrition

### TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)

S.No.	Month	Week	No. of Periods Per Week	Topics to be covered	Co-Curricular Activity
1.	July	1 Week	2	Cultural background of nutrition	
		2 Week	2	Definition of food and nutrition	
		3 Week	2	Relationship between food, nutrition and health	
		4 Week	2	Functions of food and dimensions of health	
2.	August	1 Week	2	Different nutritional status	
		2 Week	2	Classification of nutrients	
		3 Week	2	Sources, classification and digestion of nutrients	
		4 Week	2	Functions and RDA of carbohydrates	
3.	September	1 Week	2	Effect of deficiency and excess intake of carbohydrate	
		2 Week	2	Definition of calorie Calorific value of foods	
		3 Week	2	Factors affecting energy requirement	
		4 Week	2	Effect of deficiency and excess intake of energy	
4.	October	1 Week	2	Composition and sources of protein	
		2 Week	2	Classification of protein	CCE-I
		3 Week	2	Functions and RDA of protein	
		4 Week	2	Effect of deficiency and excess intake of protein	
5.	November	1 Week	2	Composition and sources of lipids	
		2 Week	2	Classification of lipids	
		3 Week	2	Functions and RDA of lipids	
		4 Week	2	Effect of deficiency and excess intake of lipids	
6.	December	1 Week	2	Definition and classification of vitamins	
		2 Week	2	Functions, Sources and RDA of Vitamins	CCE-II
		3 Week	2	Effect of deficiency and excess intake of fat- soluble and water-soluble vitamins	
		4 Week	2	Sources and functions of minerals	
7.	January	1 Week	2	RDA and factors affecting absorption of minerals	

		2 Week	2	Deficiency and excess intake of various minerals	
		3 Week	2	Fluid and electrolyte balance, functions of water and electrolyte	
		4 Week	2	Selection, nutritional composition and changes during cooking of cereals	
8.	February	1 Week	2	Selection, nutritional composition and changes during cooking of pulses	CCE-III
		2 Week	2	Selection, nutritional composition and changes during cooking of fruits and vegetables	
		3 Week	2	Selection, nutritional composition and changes during cooking of milk and milk products	
		4 Week	2	Selection, nutritional composition and changes during cooking of eggs	
9.	March	1 Week	2	Selection, nutritional composition and changes during cooking of fish, meat and poultry	
		2 Week	2	Selection, nutritional composition and changes during cooking of fats and oils	
		3 Week	2	Selection, nutritional composition and changes during cooking of sugar	
		4 Week	2	Various value addition methods	
10.	April	1 Week	2	Emulsion, foams, gels and colloidal solutions	
		2 Week	2	Types of Salad dressings	
		3 Week	2	Cooking methods	
		4 Week	2	One serving concepts, minimizing loss of nutrients during cooking	

### . M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABALPUR (

### **DEPARTMENT OF FOOD AND NUTRITION**

**SESSION: 2023-24** 

Class: B.Sc. II Year

Paper: Human Biochemistry(Paper-I)

### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)**

S.No.	Month	Week	No. of	Topics to
	& No. of		Periods	be
	Working		Per Week	covered
	Days			
1	July-	1 Week	2	Estimatio
				n of
				BMR,fact
				ors
				affecting
				BMR
		2 Week	2	Calorie
				meaning
				,calorimet
				ry
				methods
		3 Week	2	Respirator
				У
				Quotient,
				Structure
				and
				classificati
				on of
				Carbohyd
				rates
		4 Week	2	Glycolysis,
				Glycogen
				olysis
2	August -	1 Week	2	Gluconeo
				genesis,Gl
				ycogenesi
				S
		2 Week	2	Glycogen
				esis ,TCA
				cycle
		3 Week	2	Classificat
				ion
				,Propertie
				s and
				structure
				of
				Proteins

	-			
		4 Week	2	Essential
				and non
				essential
				amino
				acids and
				its
				classificati
				on
3	Septembe	1 Week	2	Deaminati
	r			on,Transa
	-			mination
		2 Week	2	Decarbox
			_	ylation
				and Urea
				cycle
		3 Week	2	Structure
		2 MCGK	_	and
				functions
		4 ) 4 /		of DNA
		4 Week	2	Structure
				and
				functions
				of RNA
4	October	1 Week	2	Classificat
4	October	1 Week	2	Classificat ion
4	October	1 Week	2	Classificat ion Properties
4	October	1 Week	2	Classificat ion
4	October		2	Classificat ion Properties of Lipids
4	October	1 Week	2	Classificat ion Properties of Lipids Types of
4	October			Classificat ion Properties of Lipids Types of Fatty
4	October			Classificat ion Properties of Lipids Types of
4	October			Classificat ion Properties of Lipids Types of Fatty
4	October	2 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids  Beta Oxidation
4	October	2 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta
4	October	2 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids  Beta Oxidation
4	October	2 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty
4	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids
4	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids Ketosis,Ro
4	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids Ketosis,Ro le of ATP
4	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids  Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in
4	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge
5	October	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics
	Novembe	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics
		2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids  Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics  Biological oxidation,
	Novembe	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics  Biological oxidation, Oxidative
	Novembe	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids  Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics  Biological oxidation, Oxidative Phosphor
	Novembe	2 Week 3 Week	2	Classificat ion Properties of Lipids  Types of Fatty Acids Beta Oxidation of fatty acids  Ketosis,Ro le of ATP cycle in bioenerge tics  Biological oxidation, Oxidative

<b>.</b> 1	]	i I		<b>.</b>
		2 Week	2	Cytocrom
				е
				system(re
				spiratory
				chain)
		3 Week	2	Chemistry
				and
				biochemic
				al
				functions
				of
				vitamins
		4 Week	2	Deficiency
				and
				excess of
				Vit-A,D
6	December	1 Week	2	Deficiency
				and
				excess of
				Vit-E,K
		2 Week	2	Deficiency
				and
				excess of
				B-
				complex
				Vitamins
		3 Week	2	Biochemic
				al role of
				minerals
		4 Week	2	Deficiency
				and
				excess of
				Ca,Ph,Na
7	January	1 Week	2	Deficiency
				and
				excess of
				K,Mg,
		2 Week	2	Deficiency
		2 Week	_	•
		2 Week	_	and
		2 Week	-	and excess of
			-	and excess of Fe,Zn
		3 Week	2	and excess of
				and excess of Fe,Zn
				and excess of Fe,Zn Definatio
				and excess of Fe,Zn Definatio n and
				and excess of Fe,Zn Definatio n and Types of

8	Lopernous	1 Week	la	Co-
٥	February	1 week	2	enzymes,l
				soenzyme s
		2 Week	2	Specificity
		2 WEEK	2	and mode
				of action
				of
				enzymes
		3 Week	2	Factors
		o week	_	affecting
				enzymes
				action
		4 Week	2	General
				mechanis
				m and
				biochemic
				al
				functions
				of
				hormones
9	March	1 Week	2	Endocrine
				glands
				structure
				and
				functions
		2 Week	2	Pitutary
				hormones
		3 Week	2	Pitutary
				hormones
		4 Week	2	Thyroid
				hormones
10	April	1 Week	2	Parathyro
				id
				hormones
		2 Week	2	Adrenal
				cortex
				and
				medullary
				hormones
				,
		3 Week	2	Gonadal
				hormones

	4 Week	2	Gonadal
			hormones

### Govt. M. H. College of Home Science and Science for Women, Jabalpur



### Departement of Food and Nutrition Session 2023-24 Proposed Teaching Plan Class- B.Sc. II Year

### Paper- II

### Title- Human Physiology

S.No.	Month	Week	No. of Periods in a Week	Topic To Be Covered
		Week 1	2	Introduction to Syllabus and Human Physiology and History
1	Taales	Week 2	2	Cells- Introduction ,Structure, Function
1	July	Week 3	2	Tissues- Introduction, Structure, Function and Classification
		Week 4	2	Muscular System- Muscle Contraction , Muscle Fatigue
		Week 1	2	Skeletal System Structure, Functions, Types of Bones
2	August	Week 2	2	Types of Bones, Joints
2	August	Week 3	2	Blood Composition and Functions, Blood Cells
		Week 4	2	Blood Clotting, Blood Group and Rh Factor
		Week 1	2	Structure, function of heart,
3	Santambar	Week 2	2	Blood Vessels,
3	September	Week 3	2	Blood Circulation Process, Heart Sound, Heart Rate, Pulse Rate,

		Week 4	2	ECG				
		Week 1	2	Blood Pressure- Physiological Variations, Factors Controlling BP,				
4	4 October	Week 2	2	Digestive System- Organs- Structure and Functions- Buccal Cavity, Oesophagus				
4	October	Week 3	2	Digestive System- Organs- Structure and Functions- Stomach, Small Intestine,				
		Week 4	2	Digestive System- Organs- Structure and Functions- Large Intestine, Supporting Organs - Liver,				
		Week 1	2	Supporting Organs - Pancrease and Gall Bladder				
5	November	Week 2	2	Process of digestion and absorption				
3		November	November	rweinser	riovember	Tioveniber	Week 3	2
		Week 4	2	Respiratory System- Structure, Function of organs				
		Week 1	2	Mechanism of Respiration- Chemical and Tissue				
	December	Week 2	2	Excretary System- Organ Structure and Functions.Formation of Urine,				
6	December W	Week 3	2	Normal and abnormal Constituents of urine, concentrating and diluting mechanism of urine, micturation				
		Week 4	2	Male and Female reproductive System- Organ structure and Function				
		Week 1	2	Menstruation, Menopause, Andropause and Fertilization				

_				
7	January	Week 2	2	Endocrine Glands - Structure and Functions
,		Week 3	2	Hormones- Introduction, Composition, Functions, Mode of Action,
		Week 4	2	Hormones- Introduction, Composition, Functions, Mode of Action,
		Week 1	2	Hypo and Hyper Activity of glands
9	Fabruary	Week 2	2	Nervous system- Nerve Cell and Nerve fiber, Classification of System
9	rabituary	Week 3	2	Central Nervous System- Brain and Spinal Cord
		Week 4	2	Nerve Impulse, Reflex Actions
		Week 1	2	Eye- Structure and Function, Physiology of Vision
10	10 March	Week 2	2	Visual Impairments- Myopia and Hyper metropia
10		Week 3	2	Ear- Structure and Fuction, Mechanism of hearing
		Week 4	2	Doubts and Tests

### GOVT. M.H. COLLEGE OF HOME SCIENCE AND SCIENCE JABA DEPARTMENT OF FOOD AND NUTRITION

SESSION: 2023-24

Class: B.H.Sc. II Year

Paper: Nutritional Biochemistry and Physiology (Paper-I)

**TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (UNDER GRADUATE)** 

S.No.	Month	Week	No. of	Topics to
	& No. of		Periods	be
	Working		Per Week	covered
	Days			
1	July-	1 Week	2	Interrelati
				onship of
				Nutritiona I
				Biochemis
				try with
				Biological
				Science.
		2 Week	2	Chemistry
				, Classificat
				ion and
				Characteri
				stics of
				Carbohyd
				rates.
		3 Week	2	Gylcolysis
		4 Week	2	Glycogen
				olysis
2	August -	1 Week	2	Gluconeo
				genesis,Gl
				ycogenesi
		2 Week	2	s Glycogen
		2 WEEK	2	esis
				,Blood
				sugar
				regulation
		3 Week	2	Classificat
				ion
				Properties
				of Lipids

1	1	4 Week	2	Types of
		4 WEEK	2	Fatty
				Acids
3	Septembe	1 Week	2	Beta
3	r	1 WEEK	2	Oxidation
	'			of fatty
				acids
		2 Week	2	Ketosis,
		2 WEEK	2	Fatty
				Liver
		3 Week	2	Classificat
		3 Week	2	ion
				,Propertie
				s and
				structure
				of
				Proteins
		4 Week	2	Essential
		4 Week	2	and non
				essential
				amino
				acids and
				its
				classificati
				on
4	October	1 Week	2	Biological
4	Octobei	1 WEEK	2	value of
				Protein,Tr
				ansamina
				tion
		2 Week	2	Transmin
		2 WEEK	2	ation
		3 Week	2	Urea cycle
		2 MCGK		orea cycle
		4 Week	2	Structure
		, week	_	and
				functions
				of DNA
5	Novembe	1 Week	2	Structure
	r	cck	_	and
	·			functions
				of DNA
		2 Week	2	Structure
		_ ****	_	
				and
				and functions
				and functions of RNA

Ī	l	3 Week	2	Definatio
		3 WEEK	2	n and
				Types of
				Enzymes
		4 Week	2	Types of
		4 WEEK	2	Enzymes
6	December	1 Week	2	Co-
U	December	1 WEEK	2	enzymes,I
				soenzyme
				S
		2 Week	2	Specificity
		Z WEEK	2	and mode
				of action
				of
				enzymes
		3 Week	2	Specificity
		3 WEEK	2	and mode
				of action
				of
				enzymes
		4 Week	2	Factors
		4 WCCK		affecting
				enzymes
				action
7	January	1 Week	2	Factors
	Jan. Jan. 1		_	affecting
				enzymes
				action
		2 Week	2	Chemistry
			_	and
				biochemic
				al
				functions
				of
				vitamins
		3 Week	2	Deficiency
				and
				excess of
				Vit-A,D
		4 Week	2	Deficiency
				and
				excess of
				Vit-E,K
8	February	1 Week	2	Deficiency
				and
				excess of
				B-
				complex
				Vitamins

		2 Week	2	Deficiency and excess of B- complex Vitamins Deficiency and excess of B- complex
		4 Week	2	Vitamins Biochemic al role of minerals
9	March	1 Week	2	Deficiency and excess of Ca,Ph,Na
		2 Week	2	Deficiency and excess of K,Mg,
		3 Week	2	Deficiency and excess of Fe,Zn
		4 Week	2	Endocrine glands structure and functions, Pitutary hormones
10	April	1 Week	2	Adrenal cortex and medullary hormones ,thyroid hormones

	2 Week	2	Parathyro id,Pancre atic,Gona dal hormones
	3 Week	2	Hydrogen ion concentra tion,
	4 Week	2	Water and electrolyt e balance

LPUR (M.P.)

### Govt. M. H. College of Home Science and Science for Women, Jabalpur



### Departement of Food and Nutrition Session 2023-24 Proposed Teaching Plan

### Class- M.Sc. IV Semester (Food and Nutrition)

### Paper- III

### **Title-Food Science and Current Trends**

S.No.	Month	Week	No. of Periods in a Week	Topic To Be Covered
		Week 1	6	Pulses and Legumes: Classification, composition, Denaturation, non-enzymatic browning.
1	January	Week 2	6	Functional properties of whole pulses and legumes, germination and sprouting. Factors affecting cooking quality of pulses and legumes.
		Week 3	6	Leavened Products: Leavening agents, biologically leavened and chemically leavened products.
		Week 4	6	Fermentation process and fermented product. Bread Pastry Biscuits and Cookies
	Week 1 Week 2		6	Milk and Milk Product: Composition, Physical and functional properties.
2			6	Denaturation, effects of processing and storage
2	rabituary	Week 3		Dairy Products: Cultured milk, yogurt, butter, whey cheese concentrated and dried products, Frozen desserts, daily product substitute.
	Week		6	Doubt Clearing Session and Revision Test
	Week 1		6	Spices and Condiments:Classification, Composition and characterstics
3			6	Flavoring extracts natural and synthetic.
3	March	Week 3	Eggs: Structure and composition. Changes during storal Processing.	

		Week 4	6	Functional properties of eggs, use in cookery. Low Cholesterol egg substitutes.
	Week 1	6	Fats, Oils and Related Products: Nuts and Oils seeds, Sources, Composition, effects of composition on fat properties.	
4	April	Week 2	6	Functional properties of fat and uses in food preparations. Fat substitutes Fat deterioration and antioxidants.
4 April	Aprii	Week 3	6	Meat and Poultry: Muscle composition, Characteristics and structure. Post mortem changes.
		Week 4	6	Processing, Preservation and their effects. Heat induced changes in meat.
			6	Variables in meat preparation. Tenderizers. Meat Products. Enzymatic and non enzymatic Browning. Its advantages and disadvantages, prevention.
۔		Week 2	6	□ Algae as food spirulina □ Organic food □ Nutraceuticals
5	May	Week 3	6	Doubt Clearing Session and Revision Test
			6	

### Govt. M. H. College of Home Science and Science for Women, Jabalpur

### Departement of Food and Nutrition Session 2023-24

### **Proposed Teaching Plan**

### Class- M.Sc. III Semester (Food and Nutrition)

### **Paper- III**

### **Title- Food Science and Current Trends**

S.No.	Month	Week	No. of Periods in a Week	Topic To Be Covered
	Week		6	Introduction to syllabus Introduction to food science Development of Food Science as a discipline.
1	July	Week 2	6	Physico-Chemical Properties of Food- Introduction of Colloidal System of Food
		Week 3	6	Colloidal salts, stabilization of colloidal systems. Gel's structure, formation and stabilization
		Week 4	6	Emulsions; formation, stability - surfactants and emulsifier. Foams: formation, stability
		Week 1	6	Cereal grains: Structure and Composition. Cereal products.
2		Week 2	6	Flours and flour quality. Tests for Flour Quality
2	August	Week 3	6	Extruded foods breakfast cereals wheat germ, bulgur, puffed and flaked cereals.
			6	Doubt Clearing Session and Revision Test Starch: Structure, Characteristics of some food starches
		Week 1	6	Gelatinization, methods for following gelatinization changes Effect of ingredients and conditions on gelatinization
3	Sontombor	Week 2	6	Modified food starches. Non-starch Polysaccharides: Cellulose
		Week 3	6	Hemicelluloses, Pectin's, gums, animal polysaccharide.

		Week 4	6	Sugar and Sweeteners: Sugars, syrups, Sugar alcohols, , sugar products.
		Week 1	6	Potent sweeteners, Alternative sweeteners, Browning.
4	October	Week 2	6	Reactions of sugar: Caramelization, Hydrolysis, Crystallization, Indian Confectionery.
4	October	Week 3	6	Introduction, Classification and nature of Enzymes, Stability and action.
		Week 4	6	Enzymes in fruits and vegetables. Biotechnological applications of enzymes in food.
		Week 1	6	Natural pigments and natural colors used in food.
5	November	Week 2	6	Doubt Clearing Session and Revision Test
3	November	Week 3	6	
		Week 4	6	

### **DEPARTMENT OF FOOD AND NUTRITION**

**SESSION: 2023-2024** 

Class: M.Sc.II sem (Food and Nutrition)

Paper: Advanced Nutritional Biochemistry

### TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (POST GRADUATE)

S.No.	Month	Week	No. of	Topics to
	& No. of		Periods	be
	Working		Per Week	covered
	Days			
	January-	1 Week	6	Vitamins
				and trace
				elements
				as
				enzymes
		2 Week	6	Vitamin-C
				and
				hydrolase
				s,Thiamin
				e and
				dehydrog
				enases
		3 Week	6	Pyrimidin
				e,
				panthoth
				enic acid,
				Biotin,foli
				c acid and
				cobalamid
				е
		4 Week	6	Detoxifica
				tion of
				cyanides
				and drugs
	Feb	1 Week	6	Meaning
				and
				properties
				of
				membran
				e 
				structure
				assembly

	2 Week	6	Functions of membran e structure assembly, Hemoglob in and its metabolis m
	3 Week	6	Physico- chemical principles and methodol ogy of colorimet ry
	4 Week	6	Physico- chemical principles and methodol ogy of photomet ryflourim etry
March	1 Week	6	Principles and applicatio ns in paper electropo rosis

	2 Week	6	Principles and applicatio ns in paper chromato graphy,lo n exchange, column chromato graphy,Th in layer,gas liquid chromato graphy
	3 Week	6	High performa nce chromato graphy,Va rious chromato graphy technique s
	4 Week	6	Radioactiv e isotopes,s table isotopes, Radio therapy, uses
April	1 Week	6	Immunolo gical methods RIA and ELISA,Bio energetics and metabolis m

-		
2 Week	6	Biological
		oxidation,
		respirator
		У
		chain,oxid
		ative
		phosphor
		ylation
3 Week	6	ETC and
		chemi-
		osmotic
		coupling
4 Week	6	ETC and
		chemi-
		osmotic
		coupling

### Department of Food and Nutrition Session: 2023-2024

Class: M.Sc. II<sup>nd</sup> Sem Paper -1: Advance in Food Microbiology

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (Post Graduate)**

S.No.	Months		No. of		Co-
	&No. of	Week	Periods	Topics to be covered	Curricular
	Working		per		Activity
	Days		Week		
		1 Week	6	Historical development of microbiology	
1.	July	2 Week	6	Historical development of microbiology, food	
				Technology	
		3 Week	6	Morphology of Microorganism and Characteristics and	
				their sources in foods-Bacteria, Mold	
		4 Week	6	Morphology of Microorganism and Characteristics and	
				their sources in foods -Yeast, Fungi	
		1 Week	6	Factors affecting growth of microorganism	
2.	August	2 Week	6	Major causes of food spoilage, Principle of food	
			preservation		
		3 Week	6	Spoilage of cereals, milk and milk products, fruits and	
				vegetables	
		4 Week	6	Spoilage of meat, fish, egg, canned food	
		1 Week	6	Food Borne diseases- bacterial and Virus	
3.	September	2 Week	6	Indicators of food safety and quality	
		3 Week	6	HACCP	
		4 Week	6	Antimicrobial compounds	
		1 Week	6	Role of Microbes-Advantages and disadvantages-	
		2 Week	6	Use of Microorganisms in Dairy products, meat, fish,	
4.	October			Bread, idli, beer, wine and yogurt	
		3 Week	6	GMF (Genetically Modified Foods)	
		4 Week	6	Conventional method-SPC	
		1 Week	6	ELISA, RIA, FIA	
5.	November	2 Week	6	Microscope colony count, DMC- Direct microscopic	
				count,	
		3 Week	6	MPN	
		4 Week	6	Revision	CCE

### Department of Food and Nutrition Session: 2023-2024

Class: B.Sc. III Year (HOMESCIENCE)

**GROUP- A Paper I - Normal and Therapeutic Nutrition** 

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (Under Graduate)**

S.No.	Months &No. of Working Days	Week	No. of Periods per Week	Topics to be covered	Co- Curricular Activity
		1 Week	2	Characteristics of good nutritional status	
1.	July	2 Week	2	Introduction-Food Groups	
		3 Week	2	Food Groups- their nutritional composition	
		4 Week	2	Food Groups -Nutritional contribution, Recommended dietary allowances	
2.	August	1 Week	2	Balance Diet-Concept, Recommended allowances of various food groups in balance diet	
		2 Week	2	Food exchange list, importance of meal planning	
		3 Week	2	Principles of meal planning	
		4 Week	2	1.Under nutrition, over nutrition, imbalanced nutrition, 2. Importance of nutritional assessment	
3.	September	1 Week	2	Infancy-Growth and development and Nutrition Requirement	
		2 Week	2	Childhood-Preschool Child	CCE-I
		3 Week	2	Childhood-School going Child	
		4 Week	2	Growth and Development of Adolescent, Meal planning and dietary Calculation for Adolescent	
4.	October	1 Week	2	Physiological changes in Pregnancy, Nutritional requirement, Meal planning and dietary	
		2 Week	2	Physiological changes in Lactation, Nutritional requirement, Meal planning and dietary Calculation for Lactating Women	
		3 Week	2	Physiological and Body compositional changes in Old Age, Meal planning and dietary Calculation for Old Age	
		4 Week	2	Basics of therapeutic Diet-Objective, regular diet and dietary modifications	

				Therapeutic diets-Routine hospital diet- Clear, full fluid, soft diet, regular diet, other therapeutic diets	
5.	November	1 Week	2	Introduction- Underweight, Causes and Meal planning and dietary Calculation	CCE -II
		2 Week	2	Introduction- Overweight, Causes and Meal planning and dietary Calculation	
		3 Week	2	Introduction- Obesity, Causes, Risk factors and Problems, Obesity-Meal planning and dietary Calculation	
		4 Week	2	Hormonal irregularities Early menopause, Andropause PCOD	
6.	December	1 Week	2	Fever-Acute Typhoid, Causes, Typhoid-Meal planning and dietary Calculation	
		2 Week	2	HIV and corona virus	
		3 Week	2	Chronic Tuberculosis- Causes, Meal planning and dietary Calculation	
		4 Week	2	Peptic Ulder-Causes, Risk factors, Peptic Ulder-Symptoms and Complications	
7.	January	1 Week	2	Peptic Ulder -Meal planning and dietary Calculation	
		2 Week	2	Constipation-Causes, Constipation-Symptoms, Meal planning and dietary Calculation	CCE- III
		3 Week	2	Acute and Chronic Diarrhea -Causes, Symptoms, Meal planning and dietary Calculation	
		4 Week	2	Causes, metabolic changes, symptoms, and nutritional management of Diabetes -Type 1	
8.	February	1 Week	2	Causes, metabolic changes, symptoms, and nutritional management of type 2 diabetes	
		2 Week	2	symptoms, and nutritional management Hypertension	
		3 Week	2	symptoms, and nutritional management Hypertension, Atherosclerosis	
		4 Week	2	Kwashiorkor	
9.	March	1 Week	2	Marasmus	
		2 Week	2	Vitamin A Deficiency	
		3 Week	2	Software for dietary calculations - "Diet soft" characteristics and uses	
		4 Week	2	Revision	

### Department of Food and Nutrition Session: 2023-2024

Class: B.Sc. III Year (HOMESCIENCE)

GROUP- A Paper II - Public Health and Nutrition

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (Under Graduate)**

S.No.	Months	Week	No. of Periods per Week	Topics to be covered	Co- Curricular Activity
		1 Week	2	Concept of public Nutrition	
1.	July	2 Week	2	Definition, aims and objectives, Relation of nutrition to health, Role public nutritionist	
		3 Week	2	Population dynamics: Definition and Introduction of Demographic transition	
		4 Week	2	Demographic Cycle- Stages, Population structures, fertility behavior, Nutrition and quality of life	
2.	August	1 Week	2	Food security-food production, access, distribution, losses and consumption	
		2 Week	2	Health economics -concept, its impact on productivity and national development	CCE -I
		3 Week	2	Determinants of nutritional status, Nutrition indicators Grip strength, respiratory fitness, Harvard step test, Squatting test	
		4 Week	2	Non nutritional indicators, sociocultural biological environmental	
3.	September	1 Week	2	Methods of assessment-Direct assessment - Objectives, methods, ABCD method, Anthropometric Method, Biochemical Method, Clinical method, Dietary Method. advantages disadvantages of above methods	
		2 Week	2	Indirect assessment-objectives, methods, Food balance sheet, Ecological parameters, Vital statistics advantages and disadvantages of above methods	
		3 Week	2	Public Health administration-	

				Central and State Health organizations, Primary Health Care in India	
		4 Week	2	Elements of Primary Health Care	
		1 Week	2	Principles of Primary Health Care	
4.	October	2 Week	2	Sub-Centre level in Primary Health Centre level Community Health center's	CCE -II
		3 Week	2	Community Health centers, Primary Health care of village level	
		4 Week	2	Primary Health care of village level	
5.	November	1 Week	2	Traditional methods and Modern Methods of Improving Nutritional Quality Supplementary feeding, Fortification, Enrichment	
		2 Week	2	Germination and genetic improvement of food Merits and demerits	
		3 Week	2	National food and nutrition policy, plan of action, National organization	
		4 Week	2	National organization	
		1 Week	2	National organization	
6.	December	2 Week	2	National food and nutrition policy, plan of action, National organization	
		3 Week	2	International organizations	
		4 Week	2	International organizations	
7.	January	1 Week	2	Role of NGO's - Types, Functions, roles	
		2 Week	2	Nutritional Epidemiology -Introduction, Aims and objective, Measurement of epidemiology	CCE -III
		3 Week	2	Nutritional Epidemiology - tools of measurement, Role of nutrition in community development	
		4 Week	2	Protein Energy Malnutrition- Introduction, types of malnutrition, prevalence causes,	
8.	February	1 Week	2	Sign & symptoms of malnutrition-	
		2 Week	2	Under Nutrition- causes and effect, Over Nutrition - sign, symptoms and causes	
		3 Week	2	Vitamin A deficiency	
		4 Week	2	Nutritional Anemia, Iodine Deficiency	
9.	March	1 Week	2	PCOD, Early menopause	
		2 Week	2	Drugs, Tobacco, Alcohol abuse	
		3 Week	2	Hepatitis HIV, CORONA, Vector borne diseases - Malaria,	
		4 Week	2	Polio, Dengue, Chicken guinea, Zika	

### Department of Food and Nutrition Session: 2023-2024

Class: M.Sc. I<sup>st</sup>sem Paper: Public Nutrition

#### **TEACHING PLAN FOR THE ACADEMIC YEAR 2023-24 (Post Graduate)**

S.No.	Months		No. of		Co-
	&No. of	Week	Periods	Topics to be covered	Curricular
	Working	vveek	per	Topics to be covered	Activity
	Days	Week			
		1 Week	6	Concept Public nutrition, Definition and concept of	
1.	July			health	
		2 Week	6	Relationship with health and nutrition, Role public	
				nutritionist in the health care delivery	
		3 Week	6	Population dynamics: Definition and Introduction of	
		3 WEEK		Demographic transition, Demographic Cycle- Stages	
		4 Week	6	Population structures, fertility behavior, Nutrition	
		4 WEEK		and quality of life	
		1 Week	6	Determinants of nutritional status, Nutrition indicators	
2.	August	1 WCCK		Grip strength, respiratory fitness, Harvard step test	
	, tagast	2 Week	6	Squatting test, Non nutritional indicators, sociocultural	
		2 WCC.		biological environmental and economic, Monitoring	
				and evaluation, Health Economics and Economics of	
				Malnutrition	
		3 Week	6	Food and nutrition security, Food production, Access,	
				Distribution Losses and consumption	
		4 Week	6	Public Health Administration-Central and State Health	
				organizations	
		1 Week	6	, Primary Health Care in India	
3.	Septembe			Elements of Primary Health Care, Principles of Primary	
	r			Health Care	
		2 Week	6	Primary Health care of village level, Sub-Centre level in	
				Primary Health Centre level Community Health	
				center's	
		3 Week	6	Nutrition education definition, purpose, importance,	
				methods and tools	
		4 Week	6	Channels of Nutrition education	
		1 Week	6	Evaluation of Nutrition education	
		2 Week	6	Programmable option Health and nutrition-based	
4.	October			intervention, Supplementary feeding, Fortification	
		3 Week	6	Genetic improvement of food and its Merits and	
				demerits	
		4 Week	6	factors in feasibility of these programs available	

				resource human infrastructure, financial Program planning, implementation, operation monitoring and evolution	
5.	November	1 Week	6	National food and nutrition policy, plan of action, National organization	
		2 Week	6	International organization	
		3 Week	6	Nutrition specific community nutrition programs in India	CCE
		4 Week	6	Nutrition specific community nutrition programs	

### DEPARTMENT OF FOOD AND NUTRITION SESSION: 2023-2024

Class: M.Sc. I sem (Food and Nutrition)
Paper: Advanced Nutritional Biochemistry

S.No.	Month & No. of	Week	No. of Periods Per Week	Topics to be
	Working Days			covered
1	July-	1 Week	6	Puriens and
				Pyrimidin
				es
				synthesis
				and
				breakdow
				n
		2 Week	6	Puriens
				and
				Pyrimidin
				es synthesis
				and
				breakdow
				n
		3 Week	6	Plasma
				protein
				,nature
				properties
				and
				functions
		4 Week	6	Plasma
				protein
				,nature
				properties and
				functions
				TUTICLIOTIS
2	August	1 Week	6	Intermidia
	20300	1.50	_	ry
				, metabolis
				m and its
				regulation
				S.

ı	I I	l l	1 -	<b></b>
		2 Week	6	Equilibriu
				m and
				non
				equilibriu
				m
				reactions
		3 Week	6	Commite
				d steps
				,allosteric
				modificati
				on,covale
				nt
				modulatio
				ns,hormo
				nal
				induction
				and
				repressio
				n
		4 Week	6	cross over
				theorem
				,starve
				feed cycle
				, calorie
				homeosta
				sis and
				futile
				cycle
3	Septembe	1 Week	6	Glycolysis,
	r			glycogene
				sis, citric
				acid cycle
		2 Week	6	Haxose
				monopho
				sphate
				pathway
				and
				gluconeog
				enesis
		3 Week	6	Beta-
				oxidation,
				de novo
				synthesis
				of fatty
				acids

		4 Week	6	Synthesis and breakdow n of unsaturat ed fatty acids,Chol esterol
4	October	1 Week	6	Phospholi pids and triacylglyc erol significanc e
		2 Week	6	Biomedic al importanc e of cholester ol
		3 Week	6	Action of different phospholi pases on phospholi pid
		4 Week	6	Major alteration s in protein, carbohydr ates and fat metabolis m
5	Novembe r	1 Week	6	Chronic nutritiona I related degenerat ive diseases, Daibetes, Hypertens ion

	2 Week	6	DNA
			replicatio
			n and
			transcript
			ation,DNA
			repair
			system,Re
			combinati
			on
	3 Week	6	Mechanis
			m of
			action of
			hormones
	4 Week	6	
			Conversio
			n of
			amino
			acids to
			specialize
			d
			products

### Govt. M. H. College of Home Science and Science for Women, Jabalpur



### Departement of Food and Nutrition Session 2023-24 Proposed Teaching Plan Class- B.Sc. III Year

### **Paper- Vocational**

### **Title- Health Care System**

S.No.	Month	Week	No. of Periods in a Week	Topic To Be Covered
		Week 1	2	Introduction to Paper and Syllabus, Introduction to Health Care System
		Week 2	2	History and Development of Health and Nutritional Programme
1	October	Week 3	2	Sector Authorities- Govt. Ministries & NGOs Women and Child Development (WCD)
		Week 4	2	Ministry of Health
		Week 1	2	Food Corporation of India (FCI) Scope for nutritionists and nutrition health professionals in different sectors ( Govt. and Non Govt. Agencies)
2	November	Week 2	2	National Health Care Delivery System Levels of Health Care Delivery
	November	Week 3	2	
		Week 4	2	Primary Health Care of the Community Determinents of Health, Indicators of Health
		Week 1	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures
3	December	Week 2	2	Prophylaxis programmes, National Tobacco Control Program
3	Determber	Week 3	2	Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures for Aflatoxicosis, Alcoholism, Fluorosis

		Week 4	2	Communicable Diseases - Introduction Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Tuberculosis
		Week 1	2	Major Nutritional Problems - Etiology, Prevelance, Clinical
		Week 2	2	Menifestation, Prevention, Therapeutic Measures of Malaria, Measles
4	January	Week 3	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Herpes ,Pneumonia,
		Week 4	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Covid 19, AIDS
	Fabruary	Week 1	2	Nutrition Programs of India
5		Week 2	2	Promotion of Breast Feeding IYCF
5		Week 3	2	Eat Right India Movement- 2019 Poshan Abhiyan
		Week 4	2	Antyodaya Anna Yojana Shri Annpurna Yojana
		Week 1	2	Rashtriya Kishor Swasthy Karykrim (RKSK)
6	March	Week 2	2	Nutritional Program of Health Care for Elderly
	Iviai Cii	Week 3	2	Antyodaya Anna Yojana Shri Annpurna Yojana
		Week 4	2	Doubt Clearing Session and Revisison Test

### Govt. M. H. College of Home Science and Science for Women, Jabalpur



### Departement of Food and Nutrition Session 2023-24 Proposed Teaching Plan Class- B.Sc. III Year

### **Paper- Vocational**

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S.No.	Month	Week	No. of Periods in a Week	Topic To Be Covered
		Week 1	2	Introduction to Paper and Syllabus, Introduction to Health Care System
		Week 2	2	History and Development of Health and Nutritional Programme
1	October	Week 3	2	Sector Authorities- Govt. Ministries & NGOs Women and Child Development (WCD)
		Week 4	2	Ministry of Health
		Week 1	2	Food Corporation of India (FCI) Scope for nutritionists and nutrition health professionals in different sectors ( Govt. and Non Govt. Agencies)
2	November	Week 2	2	National Health Care Delivery System Levels of Health Care Delivery
	November	Week 3	2	
		Week 4	2	Primary Health Care of the Community Determinents of Health, Indicators of Health
		Week 1	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures
3	December	Week 2	2	Prophylaxis programmes, National Tobacco Control Program
3	Determber	Week 3	2	Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures for Aflatoxicosis, Alcoholism, Fluorosis

		Week 4	2	Communicable Diseases - Introduction Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Tuberculosis
		Week 1	2	Major Nutritional Problems - Etiology, Prevelance, Clinical
		Week 2	2	Menifestation, Prevention, Therapeutic Measures of Malaria, Measles
4	January	Week 3	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Herpes ,Pneumonia,
		Week 4	2	Major Nutritional Problems - Etiology, Prevelance, Clinical Menifestation, Prevention, Therapeutic Measures of Covid 19, AIDS
	Fabruary	Week 1	2	Nutrition Programs of India
5		Week 2	2	Promotion of Breast Feeding IYCF
5		Week 3	2	Eat Right India Movement- 2019 Poshan Abhiyan
		Week 4	2	Antyodaya Anna Yojana Shri Annpurna Yojana
		Week 1	2	Rashtriya Kishor Swasthy Karykrim (RKSK)
6	March	Week 2	2	Nutritional Program of Health Care for Elderly
	Iviai Cii	Week 3	2	Antyodaya Anna Yojana Shri Annpurna Yojana
		Week 4	2	Doubt Clearing Session and Revisison Test

Paper I

#### Session

M. Sc. 7 Sem

2024-25

Paper:-

Advanced Study in

Teaching Plan for the Academic ye .... Under graduate Post oran 5. Month & No. V:O Week No. of Topics to be covered of Working Co-curriculum Activing Periods per days week I -Principles & concepts of Gunnath & development 06 I January 06 Developmental tasks. 06 Maturation of learning TV 06 Individual differences, rahre make I Perenatal Development 06 I Physical & mutors development 06 Birth Process & neonate 06  $\Pi$ Early language social & Cognitive IV 06 Terensition form in lang to childhood I 06 Physical & Motor devc. Emerging soft I 06 Language Cognition 4 Gmotions 06 I ECCF, Fauly Socialization. W 06 Parentiff & Cultural Processs Lale Childhood - Physical 4 motor I 06 dure charges & challenges I 06 Sence of industry & personally dove. Cognitive moral & language dove. April  $\mathbb{I}$ 06 Social relationship-Pears Siblings 06. W The Experience of Schooling. 5 Adolescence - Transition Form Childhood I 06 to Sexual muturity  $\mathbb{I}$ 06 Development of formal operation Integration of Self-Identify  $\Pi$ 06 Role of Family, Moral raising 06 TV Health Sexuality mental houlth June Final Exam

fun

Teachers Name & Signature

### Session

SSI- MSC II H.D.

Paper: (A) Infant Development and

ching Plan for the Academic year 2024 (B) Pase that is carry Strands and Under graduate Post graduate

S. No		nth & No. Working ys	Week	No. of Periods per week	Topics to be covered Co-curriculum Activity
1	To	anuany	エコ	o6	Meneral Introduction and John to growth and John to growth and John to growth and Development study Development study Developmental abilities. Junity Infancy in mainur setting
			加	06	ordanism strategies of cultural
			卫	0 6 r/e	eptimal - Nonophomal growth influence on physical Psychometer and confeitive growth.
2			I	06	At Mike condition.
		Febuary	I	06	The orling as a cultural process child and prepare
			亚	06	language development of Intancy
			THE THE	•6	Brain Corelation boursely property accoment
1	3		I	06	Need methodoligical issues Retrical Need methodoligical issues Retrical issues related to infant account the
		March	工	06	Intervention and stimulation programme descriptment plan proof, with special reference to Indian Setting yes critical
			111	06	traditional methods game, cong
			亚	06	Task of parenting, concept of parenting skills Being a competent parent the mothering hale Traditional presents of trade the mothering hale
	4	<u> </u>	1	- 06	I C 11 I A LA LA CANCENTAL CANNIN
		lingA	1	L 06	Here lupmental interaction in early
			. ]	II 06.	Helping child to bean to extracts personal emotions. Helping child took aver personal
ð			· /- <u></u>	▼ °6	Meeting Family needs and Children's Tchoul
	5	May.	. 2	06	Techniques of Powert colucation arouse Shup and Irlammal meetings occasional accordantial towert meeting
			7	t 06	Pascote library toy library, worthlop. Programme
			=	町	The promotive from contractions of Parameter comments of promotives to
				TV 0	Lunde and Ensall westing enoughted but her

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Teachers Name & Signature

Ds. Madhulika Shaivastava.

### Session 2024-25

an for the Academia was a series of Adolescence & Youth

d.	Month & No.	or the A	cademic ye	M 2024-25 Under grad	nce & Youth wate/ Post graduate
No 1	of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
	January	I	06	The adolescent stage Its link with late childhood and youth	
	(	I	06	the concept of adolescence	
		皿	06	Developmental task of adolescence Anna Freed, kayan	
?		TV	06	Anna Freud, kayan	
		I	06	-mart	
	February	I	06	Puberty, Psychological resp onse to puberty.	
	V	II	06	Gender difference, sex	
		TV	06	Cognative development	
3		エ	06	Piaget's theory, Intellectual development awing adolescence	
	March	I	06	The Information-Processing	
		III	06	Reasoning, thinking cuitically	
		V	06	Judgement I dentity for mayon	
		I	06	Development of Self-Concept	
		I	06	social & Emotional development	
	livegA	T	06	Family peers & triendships,	
		TV	06	Interpersonal relations, conflict with authority school, college, work & career	
		I	06	Training for carcer and work, Importantagents of influence, Family, Electronic media	
	May	II	06	Mayriage	
	0	III	06	Delinguency 8 disturbance Juvenile delinquency Depression, suicide, Aids	a .
		TV	06	Depression, suicide, Aids	

Mus. Shouli Singh - 30 y Teachers Name & Signature

				Session
		A. Sc	. 1 Sern	2023-24 Paper: Advanced Study in Human Proclopmon  Under graduate Post graduate
	nonth & No.	Week	No. 01 Periods per week	Topics to be covered
	January	I II IV	06 06 06	-Principles & Concepts of Gunden & development  Developmental tasks.  Maturation & learning  Individual diffrences, reducement
		I	06	P. Ad Development
	February	II	06	Physical & mutor development Birth Process & neo nut e
		TI	06	1. Augle Social and woman
3		卫工	06	Torunsition form in lang to childhood
	March	五山山	06 06 06	Ecct, Early Socialization.  Parenting & Cultural Processs  Parenting & Cultural Processs
G.		I	06	Late Child hood - Proges deve changes a challenges de challenges
	i	I	06	L CANDELOW 3
	April	T	nG.	Social relations of the Schooling.
5		1	06	Adolesano - Dianano I star College
		1	_   _	
	May		1 00	Integration of sure raising
	•	1	卫 00	Health Sexuality meway nearth
6	June	2 -		Final Exam
1				Q Cignature

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Teachers Name & Signature

Mrs. Madhuri Khandelkon

### Session 2023-24

ming Plan for the Academic year 2023 - 24 Paper: III A dolescence post graduate

s. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
		I	06	The adolescent stage Its link with late childhood and youth	
	January	I	06	The concept of	
		世	06	Development	
		TV	06	Anna Freud, Kayan Physical & Sexual develop	
		I	06	-ment a lagical 4050	
	February	工	06	-ment Puberty, Psychological resp -onse to puberty.	
		III	06	Gienaes aiff	
		TV	06	Cognative development	
		ゴー	06	Piagets ment awing adolescence	
	March	I	06	The Information	
	11(000000	·III	06	Reasoning, thinking outland	
		IV	06	T I A SECOND I A POST I I WOUND IN	
-	,	I	06	Development of seguents	
		I	06	social & Employed action	
	livegA	TT	06	Family, peers & forendships, Interpersonal relations,	
	4	IV	06	School, Collège, ward	
-	. 4	I	06	Training for career and work, Importantagents of influence, Family, Electronic wedis	y
-	May	I	06	MAHRUALL	
	0	11	06	Delinguency & disturbance Juvenile elelinquency Depression, suicide, Aids	,
		W	06 3	Depression Suicide, Aids	

Allen

Mrs. Swuli singh- from Teachers Name & Signature

	10h :	11.2	c. I Sem	Session
	Jones of	the A	ademic ye	2019.12
10		Week	wemic ve	
	days		No. of	Topics to be covered  Under graduate/ Post graduate  Topics to be covered
		-	Periods per week	Co-curriculum Activity
	January	7	06	Pari
	Cary	II	06	Overeth & clavelopment
			06	Developmental tasks.
1	-	IV	06	The second second
		I	Status, Name of Status Cong	Individual differences, nature make
	0		06	Perenatal Development
	February	I	06	Physical & mutors development Binto Po
	1	TII,	06	Birth Process & neo nute
1	The same of the sa	TV	06	Forty landance 11 8 c
		I	06	Early language social & Cognitive
And the second s			50	Toransidion form in lang to childhood
	March	I II	06	Physical & Modor deve. Errenging soft
	· way			ECCE, Early Socialization.
1-4		W.	06	Parenting & Cultural Processs
		I	06	Late Childhood - Physical 4 motors
	1.	I	0.0	Late Childhood - Physical 4 motors deve charges & challenges
	Δ		06	sence of inclusory & personally deie.
	April	耳	06	Cognitive morel & language dove.
		TI	06.	Social relationship-Peons Shings
5				The Experience of Schooling,
		I	06 -	Adolesance - Transition Form Childhood to Sexual medurity
		I	06	Development of formal operation
	May	I	06	- Integration of Self-Identify
		IV	06	Role of family Marie raising
		10	06	Health Sexuality mental health
6.	June	_		Final Exam

Any

Teachers Name & Signature Mrs. Madhuri Khandelkan

Session 2019-2423.

aching Plan for the Academic year.

Paper: (A) Infant Development

(13) Panenting in early with producte

(15) Panenting in early with producte

	S.	Month & No		eddemic ye	mic year			
	No 1	days	. Week	No. of Periods per	Topics to be covered			
		January	I	week	Garage			
		7.19	工	o <b>6</b>	Meneral Introduction and Infant growth and Menarte. Meaning concept werelepment study			
			707	06	Developmental abilities. Inning Infancy in uncious setting. Adaption strategies of cultural			
-	2		I	06	Aprimal - Hanophismal queuts influence			
			エ	06	At hick conditions and constitute growth.			
		February	工	06	Role of Father in formation of attachment Interaction with			
			世	06	Language development of Infancy strumalation activity			
			W	•6	Ent interaction cultural proceptions  Brain corelation variation in der  Paulti languation. Developmental accoment			
3	•		工	06	Need methodoligical issues Fthical			
		March	工	06	Intervention and stimulation programme development plan Proof with special reference to Indian setting yes crit			
			111	06	Traditional methods game, cong			
		,	I	06	Being a competent parent			
4			T	06	Fathering bole. Concept of Family			
		April	I	06	Tamily injecycle stage Developmental interaction in early Childhood Family 40 later and communication treeds.			
		*	亚	06.	Helping child to learn to express and control e-medions. Helping child took were pensonal compactions, Extendicting weethe			
			<b>V</b>	° 6	Learning social sole and interaction with Musicay Meeting Family needs and Children's Tehool needs.			
5	1	Nay =	F	06. 1	echangues of forcent advantion aresk-shup and			
			t	0.	internal meetings occasional accidential thent meeting			
		1	五	06	sensors the centre.  Sensors the centre.  Sensors corner, opendouse			
			V	1.	its relunchable of the bucht education of post			

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Teachers Name & Signature

Do Madhulika Shirastava.

प्रिक्रा महाविद्यालय जवलपुर प्रिक्र

	fass; .	Me	***	See	#100 1692
17.18	China ni	1.1.20	II Sem. C.	Session 2022-23 Juman Development Paper: To	
and the	Month & No.	or the A		ruman Development	
S.	THE REAL PROPERTY.		<sup>cade</sup> mic ve	Paper: T	I vaidle
No	of Working	Week	No	W 2022-23 Adolesce	nie 2 Youth
	days				vate/ rost graduat
1	The state of the s	-	Periods per week	ro os coveted	Co-curriculum Activit
		I	The second secon		
	Namuary		06	the adolescent stope	the state of the s
	January	777		The adoloscent stage Its link with late diffhed	
		II.	06		
		皿	0.0	The concept of adolescence	
2		V	06	Developmental task or	
		I	06	Developmental task of adolescence Anna Friend, kayan Physical 2 Sexual development	
	-		06	Hysical & Sexual develop	
	February	工	06	Puberty David Asia	
	0	TII		Puberty, Psychological resp onse to puberty.	
		III	06	Grender disterence :	
-		TV	06	Grender difference, sex	
		エ	06		
	1.0			Piaget's Theory, Intellectual development awing adolescence	
	March	I	06	The Information of	
		III		The Information-Processing view.	
		10-002-00-00-00-00-00-00-00-00-00-00-00-0	06	Reasoning, thinking Chitically	
_		$\overline{\Delta}$	06	Reasoning, thinking critically  Judgement Identity for nation	
		I	06	Development of self-concept Indian views on adolescents	
		$\mathcal{I}$	06	Indian views on dates cents	
	livegA	TIT!		auda & Emotional development	
1	,	111	06	Family, peers & sociendships,	
				Interpersonal relations, conflict with authority	
		IV	06	School, College, work &	
+				COOPED!	
		エ	06	Training for career and	
	Mari			intly encodantagents of	
	May	I	06	work, Importantagents of influence, Family, Electronic media Marriage	
	7	Ш			
-			06	Delinquency & disturbance Juvenile eletinquency	*
		W	06	Depression, suicide, Aids	

Away

Mul. Shull Singh - & Teachers Name & Signature

#### Session

				Session
	/		· I Sem	2021-22 Paper: Advanced Study is Human Parlopmens Under graduate/ Post graduate
_	or t	the Ac	ademic ye	Under graduate/ Post graduate
Workin days			No. of Periods per week	Topics to be covered   Co-curriculum Activity
Janu			06 .	Principles & concepts of Grandth & development  Developmental tasks.  Maturation & learning  Individual diffrences, returnable
	0.13	I	06	Perenatal Development
Febru	ans	I	06	Physical & metors development
1	1	TI	06	Birth Process & neo nut e
		IV	06	Early language, Social & Cognitive
		I	06	Physical & Motor dever Emerging sett
		I	06	Language Cognition 4 Gmotions
Marie	h	I	06	CCE - Faely Socialization.
		I	06	Onsubial & Cultural Processs
		I	06	Lale Child had - Physial 4 motor dure charges & challenges
1.		I	06	cause of inclustry & personly dell'
Apri	)	耳	06	Cognitive morel & language dove.
7,754		TU	06.	Social relationship-Pears Siblings The Experience of Schooling.
,		T	06	Adolescence - branstin Forom Childhood
	2. 4.0	I	06	- a should of formal operation
Mar	1	II	06	Integration of Self-Identity Role of family. Moral reasoning
	•	IV	06	Health Sexuality mental houlth
G' Jur	ጎ၉.			Final Exam

Ayun

Teachers Name & Signature

Mers. Madhuri Khandelkon

<u>Session</u>

	g Plan fo	r the Ac	ademic year	Paper: (n) Infant Development and
lo		Week	No. of Periods per	Topics to be covered
	days		Week	Co-curriculum Activity
	January	エ	06.	George
	1.	工		Syllabus discussion. Infant grown and
		3.5	96	1 - Condite : Meaning cancel - development study
		70	06	a serious chilips a during This is the serious called
		TV.		Felting Strategies of cultural
-	-	-	0.6	pptimal-Honophomal growth influence
		エ	06	At Ack condition.
	February	工	06	A tegining of attachment determinent Interaction with
	1			Interpolien as a cultural stocks. Child and parpare
		亚	06	Language development of Infancy Strumalation activity
		I IV		Ent interaction cultural proceptions
		-14-	•6	result languation. Developmental assessment
3		I	06	Need methodoligical issue & Ethical issues related to infant account. Prepare layinge
	March	I	06	Intervention and stimulation programme development plan
			1	proof with special reference to Indian setting yes ciril &
		411	06	Tack of pavening, concept of paventing skills
		亚	06	Being a composent power to makeing bote
				Fathering role. Concept of Family
4		17	06	Family literycle stage Andy children
	IingA	I	- 06	Developmental interaction in early needs.
			06	Helping child to bean to expression personal
			- 06	capacities, Extendishing weather with Musin Learning social sole and interaction went with Musin
		-		needs:
1	May.	I	06	
	1.	世		
	1			De monstration centre
1		I	I e	of Parents corner, oberones
1				Linge and Small metal the education support
1		1	I O	6 period and office services

Reachers Name & Signature

Walker Telegram Grange & Madhulipa Shairastara. Made Ana

# Sevelopment Department -

### M.Sc.II Sen. (Human Development) Session 2021-22 ng Plan for th

	rian to	r the A	Cadami	Than Develop	One of 1-22	
No	Month & No. of Working	Week	No ved	H- 2021-22	Ad Olon	* 1 . 1 . 1
1	days		Periods per	Topics to be covere	Adolescen	te 2 Youth
1 1		I	Week	covere	Mark the state of	o-curriculum Activity

IN	of Work	No. Wee	and the same of th	Yearl 2021-22 Ad Paper: III
	o of Workin	B	k No. of	Ad The steries of Maril
1			Periods p	Topics to be covered
		I	and the second s	Co-curriculum Activit
	Janua		06	The Activity
	1 saudo	W		The adolescent stage
		OIT	Δ.	Its link with late childhood
			06	the constant
		加	06	The concept of adolescence
2		TV	06	Developmental task of Anna Frieud, kayan Physical & Sexual doubles
		I		Anna Friend kann
	51		06	Physical & Sexual develop
	February	y II	06	- Me st
	(			Puberty, Psychological resp onse to puberty Grender distant
		一皿	06	Greenty of Puberty
		TV		Grender difference, sex
3		Ī	06	Cognative development
		-	06	Piaget's Theory, Intellectual alevelopment awing adolescence
	Mari			development during adoler
	March	I	06	The Indone fine
1		III		The Information-Processing View.
		1 1	06	Reasoning Hainking Cities
		IA	06	Reasoning, thinking critically
ĺ	4	I	06	Take the tak
		-		Development of Self-Concept Indian views on adolescents
	Α 11	工	06	social & Emotional development
1	livege	TIT		
			06	Family, peers & friendships,
1				Interpersonal relations,
		TV	NG	School Call age 1001/18
-				Conflict with authority School, College, work &
		エ	06	Livaining for career and work, Importantagents of influence, Family, Electronic media
				work. Important and car
M	ay	-		influence family flathanicual
, (	7	工	06 1	Mansuage
	7	111	000	relimanement & disdustrant
		111	06 1	Turnile delinational
		W	06 D	Delinquency & disturbance Juvenile elelinquency epnession, suicide, Aids
			00 0	chrician, schae, Mas

April

2020-21

Paper;	Adm	0	4000
Inder grad	Advanced water post zno	Destopm.	12

	The same of the sa	Academic ve	2020-21 Paper: Adm.
Month & No of Working days	D. Week	No. of Periods per Week	Topics to be covered
Januar	I	06	-Principles P. (
۸.	1 11	06 06	-Principles & Concepts of Overeth & development Developmental tooks
	JV	0.0	Maturation of Jean
	I	06	and differences, represent
February	I	06	renaral Development
'	III:	06	Physical & mutor development Birth Process & neonate
	卫工	06	Early language social & Countries
	I	06	From In Comme do 1 16
March	П		Physical & Motor devc. Emerging soft Language Cognition & Gmotions
	W	06	ECCE, Early Socialization. Parenting & Cultural Processs
: 1	I	06	Lave Childhand - Obusial of and
Λ.	工	06	Sence of inclustry & personally deve.
April	71	06	Cognitive mored & language dove.
	702	06.	Social relationship-Peas Silings The Experience of Schooling.
	I		Adolesance - Transition Form Childhood to Sexual medwrity
May	I	0 —	Gerelopment of formal apention
		06 -	Integration of Self-Identity Role of family. Moral rawning
7.	IV	06 H	leulth Sexuality mental houlth
June			Final Exam

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Teachers Name & Signature

Mrs. Madhuri Khandelkan

### <u> Human Development Department –</u>

### Session

MSC II H.D.

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	AINB.				-	and the same of th	addition to st graduate
	Month of Work	& No. ing	Week	No. of Period week		Topics to be covered	Co-curriculum Activity
	days		I	06.		Menes I Tale billion	
	Janua	UNY				Meneral Introduction and	Tolant and
-		- 1	I		- 1	Syllabus discussion. Neonate meaning consept	Joyant growth and sovelepment study
1				96	- 13	CVELUP MENTAL ANITHING JULIA T	Many in various collections
1			70	06		STABLES OF CUITWAI	Sand 12 april 20 851113
			IV	06	44	Hing Himal - Nonophomal growth influe Physical Psychomoten and copp	nie Hivo augusta.
2		-	エ	06	1 #	that condition	
	15.1	.   .	工	^ =	A	begining of attackment the marte	work of the state of
	rebuar	4		06	20	e of Father in fermation of attach	child and prepare
		-	<u>u</u>	06		tanaction as a cultural process	s-firmalation activity
		1	-	·	E	grage development of Infancy   wit interaction cultural proception	
	1.	.   ]	W	06	TAN	ain conclation variation in devi	1
	+	+-			16)	ulti langualtism bevelopmental as al methodological issues 18thical	rezwent
				06	1550	. In smazza traffic of tostols a las	Prepare largua
	March	1		06	Int	envention and stimulation production	mme devolopment Pla
			-   .	06		y, with special reference to Indians	an Adi crus
	ž.					litimal methods game, sony	on chille
		IV	-	06	190	g a competent parent the mother	
4		$\perp$			1700	THAT BUSINESS HOLD BUSINESS	in role
1		11	-	06		learing tole . Concept of Family nily liposycle stage	· an and
1	1. 11	II	-	06	Dava	Idemental interaction in early	Andy children
1	linga		- 1		Chil	sthood family helation and commu	incation dreeds.
		一	-	o6 ·	Helpi	ng child to learn to express and without our periods in the period child to discurren periods. Establishing multiple	entse)
l		V	1	96	Low	ing social sole and interaction	with Minney
					needs	of Family needs and Childrens	Tehvol
2	Nay.	エ		06.	Techni		· arask-shut and
	7.					nal meetings occational (accordantial	Evert meeting
	-	世	1			a and printing material.	Programma
				1	_	libroury toy library, two othersp.	
	:	111		1	•	stration centac. 5 cosmes, opendouse	Bas San Carlo
	0			2 DE	Lange	and Small meeding eventing	
	1 -	117	1 6	26 4	oth tel	and Small merching eventing	-rolding

Coind-19 Lock down period - Online class: - Attps://meet.google.com/pog-vkoj-aio

Teachers Name & Signature

Dx. Mashulika Shrivastava.

शास. मो. ह. गृहविज्ञान एवं विज्ञान

CPERT

### Session

M.SC. II Sen. (Human Development) Paper: III

/	Month & No.	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	days	1	06	The adolescent stage Its link with late childhood and youth	
	January	I	06	the concept of auto-	
		皿	06	- 1 - 1 - 1 - 1 A	
		IV	06	Anna Freuerical develop	
		I	06	Developmentar tush of adolescence Anna Freud, kagan	
	February	I	06	-ment Puberty, Psychological resp -onse to puberty. Grender difference, sex education	
	9	TIL	06	cognative development	
		1	06	Prager & Towing adolescence	
	Manal	I	06	The Information	
	March	III	06	view. Reasoning, thinking critically Judgement, Identity for nation	
		V	06_	Judgement of Self-Concept	
		I	06	Judgement Identity Forman Development of Self-Concept Indian views on adolescents Indian views on adolescents Social & Emotional development	
		I	06		
	April	T		Interpretation and another	
		IV	06	CCARDI. CONT	
-		I	06	Training For Eartagent S of	
-	Mart	-47	06	influence, family, Eleibanic Marsuage Marsuage Delinquency & disturbanic Juvenile elelinquency Depression, suicide, Aids	
	May	T	00	relinquency & disturbance	

SWA

Mu Swul Singh - Ligh Teachers Name & Signature

			/ "	Session Session
				c artment
		M.	sc. Is	4. 4
	ng plan	for the	Academic (	2019-20 Paper - I
	Month & No.	and the state of the state of		- 121:- 1
	of Working days		Periods n	Topics to be covered  Joseph Advanced Study in Propies to be covered  Topics to be covered
T	and the second second second second second	T	- week	Will to the second
	January	. I	06	
	Jon Way	III	06	-Principles & concepts of Developmental tuch
			06	Developmental tasks.
2.		JV	06	Platuration 1 1 10000
		I		Individual diffrances, reducembre
1	February	TP	06	Perenatal Development
	Coway	14.	06	Physical & metors development Birth Parson
		III:	06	Birth Process & neo nute
3	-	IV	06	Early landuages ill c
		I	06	Early language social of Countries Torensition form in lang to childhood
		I	06	Physical & Motor devc. Emerging soft
	March	11	06	Language Cognition 4 Gmotions
		I	06	ECCF, Early Socialization.
4		T	06	Parenting & Cultural Processs
	· j . '			Late Childhood-Physial 4 motors deve changes & challenges
	Λ .	I	06	Sence of inclustry & personally dove.
	April	耳	06	Cognitive moral & language dove.
		TIL	06.	Social relationship-Pens Siblings
5		T	00	The Experience of Schooling,
		_	06 _	Adolesano - Transition Form Childhood to Sexual muturity
	M	I		Development of formal operation _
	May	II	06	Integration of Self-Identity
		IV	06	Role of family. Moral raising Health Sexuality mental houlth
3.	Jure	-	_	Final Exam
		<del></del>		· · · · · · · · · · · · · · · · · · ·

Hord

Teachers Name & Signature We

Mers. Madhuri Khandelkan

M.SC.TI Sen. (Human Development) Paper: TI

Month of Wor days	& No.	Week	No. of Periods per week	200616Q	ruce & You'll luate/ Post graduate	
1 401		I	06	The second secon		
James	wy	I	06	The adolescent stage and youth		
		JV TIT	06	The concept of adolescence in India Developmental task of adolescence Anna Freud, kayan		
		I	06	Anna Freud, kayan Physical & Sexual develop		
Februa		I	06	-ment Puberty, Psychological resp -onse to puberty.		
		加	06	Grender difference, sex		
-		T	06	Cognative development		
			06	Piaget's Theory, Intellectual development during adolescence		
March	1	I	06	The Information-Processing		
	-	III	06	Reasoning, thinking critically		
		IV	D/	Triday out I diom ITY FOR MANO		
6		I	06	Development of Self-Concept Indian views on adolescents		
	1.7	$\Pi$	06	social & Emollories developmen	Ψ.	
April	T	IT		ravila poers & sovendships,		
,-				Interpersonal relations, conflict with authority		
	T	V	06	School, College, word		
	I	-	06	Training for career and work, Importantagents of influence, Family, Electronic works	t edia	
lay	I	-	h /	VI ALC 141 / 1 (41)	1	
Û	III	-	06	reproduct & disturban Juvenile elelinquency epression, suicide, Aids		
	W		06 D	epnession, suicide, Aids		

Alway

Mrs. Shruli Singh-Joygh Teachers Name & Signature

#### Session 2013-2020

Class: - M.SC.IV Paper: Il person with special Teaching Plan for the Academic year .... 2013 - 2020 Needs - II

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
		1 Week	6	Mental Relaxdation-moving concept  Identification & classification	national Gist
	January	2 WEEK	6	1	
		3 Week	6	causes & adjustment problem	
		4 Week	6	adjustment problems. Learning disability	
2		1 Week	6	meaning and concept of	and the same of th
	February	2 Week	6	characteristics of learning	
		3 laleek	6	Causes of learning disability	+
		4 Week	6	Identification of learning disability	
3		1 Week	6	Educational provisions arriced	
	march	2 Week	6	meaning & concept of Gifted children	
	, idacri	3 Weel	6	Identification & classification of gifted children	7
		4-Weel	6	Educational provisions	
4	-	Ilyec	6	physical & social barriers in the development of persons wit	h
		2 Weel	6	disabilities. modification of environment	
	April	3 Wee	k 6	contributing member of society	
		4 lilee	K 6	Use of assistive devices enabling participation of person with disabilities as a contribu	ens ting
5		1 Wee	k 6	person with disability Act	
	may	2 Wee	k 6	vocational & occupational Rehabilitation Provisions	
	0	3 livee	K 6	Integrated inclusive Educati	1
		4 Wee	7	Integrated inclusive Education	n (

Ajwan

DR ABHA TIWARI Teachers Name & Signature

Jour. M. H. College of Home Sc. Sc. for Women, Jabaipur (IMP)

PRINCIPAL

Govt. M. H. College of Home Sc. &

Class: - M.Sc. IV Sem

S.	Month o	ine A	cademic	Session Sozo		
No 1	days	Week	No. of	8-19-20	Paper:- Ad-	ranced study in
1	January	I	Periods per week	Paper: Advanced study in Human Development - II Topics to be covered		
		II	06	014	,	Co-curriculum Activity
		II	06	Development 1	of old age	
3	Fabrary	11	06	13 hysical aspect	of old age	
	f.	I	06	Unit-17	ive abilities	
		II Tù	06	Impact of set Psychological Ad Financial Ad	rement	
		I <sub>V</sub>	06	(14)	uth. I	
	Merch	T	06	ndiustr	rent	
		n	06	The prove L		
		Ш	06	the discholant	, 006	
	Anni	17	06	The shability of	phase	
	Lisay.	T	06	Unit-IVE VI	Phase	-
		II.	06	Alpheiner's lin	son's disease	
		II.	06	Unit V. Death and dying Attitude toward stages	oe, perfession	
		11/	06	stages of dea Bereavement and		
				crient and	garet	
				,		

Marge Teachers Name & Signature Dr. Manisha Arya

शास मो, ह, गृहविज्ञान एवं विज्ञान

#### Session 2019 - 20

M.Sc In sem

Paper: III Princi of Guid & cours my

ming Plan for the Academic year .....২৪১৭ ....২০ ........... Under graduate/ Post graduate

No 1	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
	T	I	06	Child with behaviour Potter	`
	January 2020	#	06	maladjusted Delinquent zbil	
	-520	Ш	06	Mentally retarted child	
2		tv	06	Councilling for Drug abusers	
	Pebruary	I	06	Course for adiline	Visit to state of
	2020	$\pi$	06	oldage courselling.	Visit to oldage
		III	06	Como for Alcohol	7
3		TV	06		
	march	I	06	Placement Sources, need	
	2020	II	06	Vocational & Educational	visit to Nosha
		III	06	Placement-	mukti Kenda
		TY	06	Aims + Objectives of following	
4	April	I	06	Types of follow up, method of & Advantages & Disadva of follow u	siko upo
	2020	п	06	Personal Counselling	<b>P</b>
		亚	06	Pre + post mariful counsely	
		V	06.	Family counselling	
5	may			Rock O are to a set	
	2020		65	final practical and	
				Theory Exam.	
					ř.

Halu Teachers Name & Signature

To Archan

Dr. Archana Gupta

#### Session 2020.21

slass: -M.S. IV Sem.

Paper: III Princi of Cruid & Com

-4	Schina ni		
20	Month & No.   Week   No. of	Paper:- m	Princi of Cruid
lo	Month & No.   Week   No. of	Under gradua	te/ Post graduate

S. No	Month & No.	Week	) Cal	Topics to be
1	of Working days	AAGEK	No. of Periods per week	Topics to be covered Co-curriculum Activity
	January	I	06	Problems & Cours. for Ado.
		T	06	
		T	06	coursellier C
2	C .	10	06	Cour for Alcoholism & Drug abunes.
	Pebruary	I	06	child with behavioral Prob.
		Н	66	Come for believe 1 110 Visit to old
		E	06	Cours. for maladjusted & mentally
3		TA	06	comos. for mentally retarted.
	march	I	06	Placement Services, need
		I	06	Vocational & Educational Place mukti Kendra
		III.	06	mukhi kendra
4		IA	06	Types 4 Method of-follow-up
	Apri)	I	06	Adventages & disadv. of follow-up
	,	T	06	I I
		町	06	Personal counselling. Pre of Post marital couns.
		TV.	06	family Cours.
5	May.	ī	06	areas of family com.
		I	06	need 4 objetives of family a
		匹	06	final prouched & Theory
		TV	06	Exam Start.

Man A. E. Tenana, Jama? Dr. Archane Gruph

Class: Ms. IV 5 cm

Session

Paper: Advanced should in

## Teaching Plan for the Academic year 20-21

Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co curriculum definit
1	Jonuary	I	06	old Age Unit I Characteristics of old age	
		TI	06	Developmental tasks of old age	
		TIT	06	physical aspects of aging	
		JV	06	charge in cognitive abilities	
2	Jabrary	T	06	Impact of retirement	
	U	I	06	Psychological Adjustment	
		T	06	Financial Adjustment	
		īv	06	Social Adjustment	and the second s
3	March	T	06	The present phase	
j		n	06	The discurdantment Phase	
		TU	06	The reorientation phase	
		1V	06 .	The stability phase the termination phase	
4	April	T	06 .	Unit-10 Parkinson's disease	,
	rip or	I	06	Algheimer's disease, Depression	
		ш	06	Death and aying death	
9		IV	06	stages of death Bereavement and grief	
;					
THE P. LEWIS CO., LANSING					
					Maye

Am

Mary Teachers Name & Signature Dr. Wanisha Aroya

राम मो. ह. गृहिवज्ञान एवं विज्ञान शाम मो. ह. गृहिवज्ञान एवं विज्ञान स्टेहिल पडिचियालय, जवलपुर

### Session 2020 - 2021

Paper: Il presen with special weeks II.

Plan for the Academic year ... 2020 - 2021 ..... Under graduate/ Post graduate

	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Ca-curriculum Activity
1	and the second s	1 Week	- 6	mental Retardation-meaning	national Girl child
	January	2 Week	6	Identification & Classification	,
		3 WEEK	6	causes & adjustment problems	g
		4 Week	6	adjustment problems. Learning disability	
2	Parabachan and page 1, July 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	1 Week	6	meaning and concept of	
	February	2 Week	6	characteristics of reasoning	
		3 laleek	6	Causes of learning around	
		4 Week	6	Identification of learning disability	
3		1 Meek	6	Educational Provisions, Gitted	
	March	2 Week	6	meaning & concept of gifted children	
		3 Week	6	Identification & classification of Gifted children	
		4 Week	6	Educational provisions	
4		1 Week	6	physical & social barriers in the development of persons with	
	• • •	2 Week	6	disabilities. Modification of environment	
	April	3 Week	6	contributing member of society	
		4 Week	6	Use of assistive devices enabling participation of persons with disabilities as a contributing	
5		1 Week	6	member Person with disability Act	
	may	2 Week	6	vocational & occupational Rehabilitation Provisions	-
		3 Week	6	Integrated inclusive Education Concept	
		4 Week	3	Integrated inclusive Education Provisions	

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PRINCIPAL Jove. M. H. College of Home Sc. C Sc. for Women. Jahalbur (MD)

Aiwan DR ABHA TIWARI Teachers Name & Signature

#### Session

class: - M.Sc. IV Sem

2021 - 2022

Paper: Advanced study in

Teaching Plan for the Academic year- 21-22

..... Under graduate/ Post graduate

i. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	Jonuary	I	06	Old Age-Unit-I Characteristics of old age	
		II	06	De mlagraphal tasks of old of	
	i	II	06	Physical aspects of aging	
		1v	06	change in cognitive abilities	general to the season and the season and the season are consisted and the season and the season of the season and the season are season as the season and the season and the season are season as the season are season are season as the season are season are season as the season are season are season are season as the season are season are season as the season are season are season as the season are sea
2	Fabrary	T	06	Impact of retirement	
	U	I	06	Psychological Adjustine	
		TU	06	Financial Adjustment	
		Ιv	06	Social Adjustment	
3	clasch	I	06	The present phase	
		n	06	The disconfuntment Phase	
		TI	06	The reorientation phase	
		17	06	The stability phase	
4	Apri 1	T	06	Description Parkinson's diseas	و
		I	06	Algheimer's disease, Depo ess	un.
		Ш	06	Death and dying Attitude towards death	
		IV	06	stages of death Bereavement and grief	
5					
				×	

शास. वो. ह. गृहविज्ञान एवं विज्ञान

Marge Teachers Name & Signature Dr. Manisha Aroya

#### Session 2021-22

M. Sc TV Sem.

Paper: 11 Princi of Cruid & Com

	15	. Month & N		Week	No. of	Under graduate/ Post graduate
	N	o of Working days			Periods pe	Topics to be covered Co-curriculum Activity
	-	Januar	۳,	I	06	Problems & Cours. for Ado.
				1	06	old age Problems & Devitance
				四	06	counselling for all and
	2			עי	06	Courselling for old age Book. Course for Alcoholism & Drugabarres.
		lebruan	ן	エ	06	Child with behavioral Prob
			:		66	cours for behavioural child age home
			Z	D	06	Corus. for maladjusted & mentally
	3		12	V	06	coms. for mentally retarted
		march	I		06	Placement Services, need Visit to Masha
			J		06	No cational R. Educational Place mukti Kendra
			1U		06	Aimes 4 Objectives of fellowup
H	4		I	-	06	Types 4 Method of folker up
		April	I		06	Adventages & discoolv. of follow-up
			I		06	Personal Counselling.
			T	-	06	Pre f Post marital cours.
_			TV		06	family cours.
5		May.	I		06	areas of family Com.
			II	0	6	need 4 objetives of family a
			亚		06	final practical of Theon
			TV	0	6	Exam Start.

Asur

Teachers Name & Signature

Dr. Archana Guph

Market Bereit de Paris

## -evelopment Department -

## Session 2021 - 2022

Jass: - M.SC.IV

Paper:- II person with special

defining rian for the Academia	The state of the s
year202	- 2022 Needs - II.
Month & No.   Week   No. of	Needs - II. Under graduate/ Post graduate

	S.	Month &	& No.	Week	No. of	Under grad	uate/ Post graduate
	No 1	of Work days	ing		Periods per week	Topics to be covered	Co-curriculum Activity
	1 .	January	. 1	1 Week	6	Mental Relardation-meaning	
		C	+	2 Week	6	Identification & classification	National GIN Child
-			=	3 Week	6	causes & adjustment problems	Day
-	2		- 2	+ Week	6	adjustment problems. Learning disability	-
				Week	6	meaning and concept of learning disability	
	Fe	bruary	f 2	Week	6	characteristics of learning disability	
			3	Meek	6	Causes of learning disability	
3		-	4	Week	6	Identification of learning disability	
			11/	1eeK		Educational Provisions, Gifted children	
	Ma	rch	2 h	leek	6	meaning & concept of gifted children	
			3 h	leek	6	Identification & classification of Gifted children	
			4 W	eek	6	Educational Provisions	
ı			TM	eek	6 F	physical & social barriers in	
	Apri	1	2 We	ek	,	he development of persons with lisabilities. Modification of environment	
	.,,.,		3 We	ek	6	ontributing member of	
			4 Idea	ek	6 e	Use of assistive devices mabling participation of persons ith disabilities as a contributin	
		1	Wee	ĸ	m	rember exson with disability Act	
M	1ay	2	Week		6 Ke	cational & occupational	
		31	Week			rtegrated inclusive Education oncept	
		4	Week		3 In	rlegrated inclusive Education ovisions	

PRINCIPAL

DR ABHA TIWARI Teachers Name & Signature

M. H. College of Home Sc. & Warnen, Jahaltur (2011)

Class: - M.Sc. IV Sem

Session 2022 - 2023

Teaching Plan for the Academic year - 22-23

Paper: Advanced Study in Paper: Human Development - I

٨	Month & No lo of Working days	o. Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	Jonuary	T	06	old age Unit-I	
		11	06	Characteristics of old age Developmental tasks of old age	
		W	06	, 12 hysical aspects of aging	
		1	06	change in cognitive abilities	
2	Fabrary	I	06	Unit- A	
	U	u	06	Impact of retirement Psychological Adjustment	
		T	06	Financial Adjustment	
		Tv	06	Social Adjustment	
	March	T	06	The presetivement phase The Honeymoon phase The Honeymoon phase	
		n	06	the dischringhement indic	
		TU	06	The reorientation Phase	
		IV	06	The stability phase The termination phase	
-	Λ and 1	T	06	Unit-IV&V Dementia, Parkinson's disease	se
	Apri 1		. 66	Algheimer's disease, Depress	sion
1	ا ن	I	04	Unit-V.	
		П	06	Death and dying Attitude towards death	
		IV	06	stages of death	
	1			Bereavement and grief	

MNON

Marye

Teachers Name & Signature

Do Manisha Aroya

शास. मो. ह. गृहविज्ञान एव विज्ञान

0	Month & No. of Working days	Manageria and Artist and Artist and	Week	s per	Topics	Pap 2 2 02 3 Unde to be covered	The second second	/ Post graduate
3	Tanuary	1 Week	0	-	Men	al Retardation.		
	9	3 MEEK	-	S	Iden	al Relaxdation-printing	fication	rtional Girl Child
		3 Week	-	6		es & adjustment		Dal
1		4 Wee	-	6	adius	tment problems. I	earning	
1	February	1 Meel	-	6	Mear	ring and concept ring disability	1	
	February	2 Wee		6	Cha	racteristics of le	aring !	Best use of waster for kids
		4 Wee	-	6		ises of learning on titication of lear	disability	
		1146	eK	<del>-</del> 6	Edu	cational Provisions	0	
	March	2 We	ek	6	Me	ildren aning & concept of ildren	4ifted	Mational corier
		3 W	eeK	6	Id	entification & classified children	assification	
4		4 W	eek	6	Ed	lucational provisio	าทร	asaprea
4	,	11	1eek	6	1+	ysical & social bas ne development of p	ersons wit	h
	April	21	leek	6	d	isabilites modificat mvironment	ion of	
		31	Week	6	C	ontributing men society	mber of	
		4	ldeek	6		Use of assistive enabling participat with disabilities as	e devices	sons ating
5		1	Week	(	1	member Person with disab		
	May	2	Week	(	6	vocational & occup Rehabilitation Pr	pational ovisions	
		3	Week		6	Integrated inclus		
		4	+ Week		3	Integrated inclus	ove Educa	tion

Marlin

DR ABHA TIMARI Teachers Name & Signature

jour. M. H. College of Home Sc. & for Women, Jahalbur (M.)

5. No	Month & No. of Working days	Week	No. of Periods per	Paper:  Topics to be covered	the Prince of Characte
	January	I	06	and the same of th	Co-curriculum Activity
		T	06	Moblems & come for Ado.	
		D	06	age Costs	Postalización
2	C	10	06		
	<i>lebruary</i>	I	06	Child with behavior 10	Oma:
		П	66	I work of the	1
		Ħ	06	Corns for behavioural child' Corns for maladjusted & montalk	Visit to old age home
3	70	TV	06	1	1
	march	I	06	Placement &	1.
		I	06	Placement Services, need	Mich +
		EL	06	Vocahanay & Educational Place	mukhi Kendra
4		D	06	mesa objectives of felkaly	p
	April	I	06	Adventages & discool v. of following	
		T	06	Personal Comments	0
		D.	06	Personal Counselling. Pre & Post marital couns.	
		U		family cours.	
5	May.	T		areas of family com.	
		I	, ,	need & objetives of family a	
		177_		final Posicion of Theory	
		TV	06	Exam Start.	

ASUL Teachers Name & Signature

Dr. Archana Guptz

शास. मो. ह. गृहविज्ञान एवं विज्ञान <u> असमहाविद्यालय</u> जबलप्र

## Session 2023 - 2024

class: M.Sc. IV Sem

Paper Advanced study in steman Development - B

aching Plan for the Academic year -23-24

..... Under graduate/ Post graduate

5. No	Month & No of Working days	. Weel	No. of Periods per week	Topics to be covered	Co-curriculum Activit
1	Jonuary	T	06	Old Age Unit I Characteristics of old age	
		11	06	Developmental tasks of old age	
		TU	06	physical aspects of aging	
		1v	06	change in cognitive abilities	
2	Fabrary	T	06	Unit Il Impact of retirement	
		I	06	Psychological Adjustment	
		W	06	Financial Adjustment	
		Iv	06	Social Adjustment	
3	March	I	06	The present phase	
		n	06	he discordantment Phase	
		Ш	06 7	he reorientation phase	
		1	. 7	he-termination phase	
4	Apri 1	T	06 . D	ementia, Parkinson's disease	
		I	06 A	Igheimer's disease, Depression	
		ш	nc De	eath and dying titude towards death	
		IV (	06 51	tages of death	
			B	escavement and grief	
			•		
				•	

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प्रिक्त महाविद्यालय, जयलपुर

Maryi Teachers Name & Signature Or Manisha Avya

### Session 2023 - 2024

Paper:- II person with special Needs - II

M.SC.IV Needs - II.

Plan for the Academic year ......2023 - 2024 .... Under graduate/ Post graduate

	Month & No	Week	No. of Periods per week	1	Co-curriculum Activity
N	days	1 Week	6	mental Retardation-meaning concept  Identification & classification	National Girl Chil
1	January	2 Week	6	Identification & classification	Day
		3 Week	6	causes & adjustment problems	
		4 Week	6	adjustment problems. Learning disability	
2		1 WeeK	6	meaning and concept	
	February	2 WEEK	6	Character is the	
		3 Week	6	Causes of learning disability	
		4 Week	6	Identification of learning aisability Educational provisions. Gifted	
3		1 Week	6	children meaning & concept of Gifted	
	march	2 Week	6	childsen & classification	
	plaser	3 Week	6	of Gifted children Educational provisions	
		4 Week	0	in baxxiers in	
4		1 Week	6	lisabilities, modification of	
	01	2 Week		environment contributing member of	-
	April	3 Week	6 .	Society devices	
		4 Ideek	6	enabling participation contributing	
5		L Week	6 F	member with disability Act	
	may =	Week	6 R	ntegrated inclusive Education	
	0	Week	6	concept integrated inclusive Education	
	4	- Week	3 P	ntegrated increases	·

Liwan DR ABHA TIWARI Teachers Name & Signature

PRINCIPAL. Fout. M. H. College of Home Sc. & s. for Women, Jahaibur (M)

Teachers

Session 2023-24

M. S. Ty Som.

Paper: In Prince of Good 1 Com

		/	cal	the A	(cadeiiie)		and the second s
		Month & N of Working	10.	Week	No. of Periods pe week	r	Co-curriculum Activity
1	1	days	- 1	1	06	problems & cours for Ado.	
1	1	Januar		П	06	old age Problems & Devitance	
			-	ᇚ	06	counselling for old age Boots.	
			1	V	06	Cows for Alcoholism & Drug aber	visit to old
2	?	sebruan.	9	I	06	child with behavioral Prob.	age home
			- 1	T	66	cours for maladjusted amentally	
			1	17		Cr mentally 700	
			12	<u> </u>	06	placement Services, need	visit to masha
3	1	march	I		06	Placement Services, " Vo cational Place Vo cational & Educational Place	mukhi Kendra
			耳	-		1 (1 1 2 1 1	
			III		<sub>2</sub> 6	Aimes & objectives of following	
		*	IV	-   "	06	Adventages & disoolv: of follow-up	
4	+	April	I		06	Hall way	
		100	工	1	06	personal counselling.	
		9	皿	.   '	06	Pre & post marital cours.	
			<u>V</u>		06	family Cours.	
	_		 T		06 (	need 4 objetives of family a	
5	1	May.	U	*	6	final practical of Theory	
			匹	- 1	06	final practical Exam Start	
			TV	0	6		
						A	15el
							a cianature

Teachers Name & Signature

Dr. Archare Guptas

शासि मो है. एहरिकशिं एवं विद्यारि हासि मो है. एहरिकशिं एवं विद्यारि

Teachers war...

·ma	CM	
aching Plan for th	e Academic vo	
and the second s	-suemic vo	

S. No	of Working days	3	Pe	riode n	70pics to b	····· Under	Braduate/ Post grad
1	Jonuary	I	-	GK	201		rost grad
		זד	٥		Old Age Unil		Curricula
		11	06		Characteristic	5 01	
		III	06	ĺ	Developmental to	sks of old age	
2	F	IV	06	i	Physical aspect	of old age	
	Fabrary	I	-	C	hange in cognit	Ve alive	
	U		06				
		I	06	Į,	report of retir	chent	the second section we have the second section of the section of the second section of the section of the second section of the section of the second section of the sectio
		I	06		1 Mich Hall	ittiment-	
		Iv	06		inancial Adjus	twent	
3	March	T		50	cial Adjustmen	t	
			06	The	Presetivement	Ob con	
		П	06		Honeymoon prediscretantment	10.70	
			06	The	reorientation ph	phase use	
4		17	06	The.	Stability Phase termination phase		
	L is a	T	06	Out	-IV&V entia, Parkinson		
		T.	06	Alghe	liner's disease .	Depression	
		II)	06	Death	ond duine		
		IV	06	Attit	ude towards d	eath	
			_	Beres	es of death avenent and gi	rief	
					, -		
					***		

Army

Maryu Teachers Name & Signature Or: Wanisha Arya

Teachers

शासा मो. हे. गृहविज्ञान एवं विज्ञान

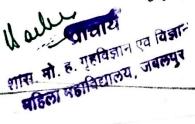
Paper:- II person with special Needs-II

1	- 21	VIE 642 - TT
Jest Jamic ve	ar 2025 - 2025	Under graduate/ Post graduate
Academie		

200	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
i orkini Na	1 Week	6	Mental Retardation-mooning	national Gist
January	2 Week	6	Identification & classification	child Day
1	3 Week	6	causes & adjustment problems	
	4 Week	6	adjustment problems. Learning disability	
2	1 Week	6	meaning and concept of learning disability	
February	2 Week	6	characteristics of learning disability	
	3 Week	6	Causes of learning disability	
	4 Week	6	Identification of learning	
	IMEEK	6	Educational Provisions, Gifted children	
march	2 Week	6	meaning & concept of fifted children	-
	3 Week	6	Identification & classification of gifted children	
	4 Week	6	Educational provisions	
4	1 Week	6	Physical & social barriers in the development of persons with	
April	2 Week	6	disabilities. Modification of environment	
.	3 Week	6	contributing member of society	-
	4 Ideek	6	Use of assistive devices enabling participation of person with disabilities as a contribution	ns ny
<u> </u>	1 Week	6	nember Person with disability Act	7
May	2 Week	6	vocational & occupational Rehabilitation Provisions	
	3 lieek	6	Integrated inclusive Education	
	4 Week	3	Integrated inclusive Education	1

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DR ABHA TIWARI Teachers Name & Signature



Teauro.

Session

Class: - B. Sc. T year 2023-24

Paper:- Life Span Develo

Teaching Plan for the Academic year

..... Under graduate/ Post graduate

S.	Month o		,	Onder grad	uate/ Post graduate
No 1	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
	July	I	06	Concept, History & Supe of Ho	7
	July	I	06	Developmental Stages of H-D:	
		II	06	Inter disciplinary nature of HD.	
2		IV	06	Methods of Studying H.D. Interview, Observation, Case Study	
14		I	06	Concept, Nature of Individual differences. Asreas.	
	August	I	06	Developmental task	
	115000	加	06	Crowth & Development	
		TI	06	Meaning, Foundation of Heredity Law of Hereclity	
3		エ	OG	Meaning & definition of Environment	
	Soptember	工	06	Environment Effects of Envisionment of Child	
	, ,,	刀	06	Development Prenatal Development	
4		TI	<u>06</u>	Maternal Heulth	
1		I	ø G.	Complications during programy	
	October	I	06	Birth Process	
	^	I	06	Cultural Bractices related to Posegnany & birth	
		TV	06	Mile Stones of Development	
5		I	06	Capecitics & cone of New down	
	November	I	06	Intancy & Robustina	
		I	06	wrateristics of (1) and 1	
		W.	06	Physical of motor deve.	
				Greneral Frends,	

Dan

Teachers Name & Signature

Madhuri Khandelkan

#### Session

Class: B. Sc. Iyon 2023-24 Paper: Life Span Develop

Teaching Plan for the Academic ye

Month & No. of Working ays	Week	No. of Periods per week	Topics to be covered	duate/ Post gradua
December		06 06	Categories of infant actività Mass & Specific milestone Groves moder skills	
	TY	06		
anvary	丁耳耳亚	06 06 06	Emotions in infancy Emotional Expression Social behaviour Patterns	Visid to Project/intemshi Work
bowary	IIII	06	Social behaviour patterns	
urch				
sú		F	inal Theory Exam	
	December	Working ays  December II III IV III III IV III IV III IV III IV III IV	Working ays Periods per week  I 06  December II 06  II 06  IV 06	Topics to be covered  Periods per week  I 06 (alegorics of infant activities of infant of Gross modern Skills  TV 06 Gross modern Skills  Fine modern Skills  Fine modern Skills  Fine modern Skills  Frobional Granessian  For Social behaviour fatterns  Do G Social behaviour patterns  Language development  Do G Child rewring Practices  TO G Frobiced Exam  (Final):

Teachers Name & Signature M. E. Tetasha Mara Madhui Khandelkan

#### <u>Session</u>

Class: - Bisc I Year (Hisc)

II HD Majos.

Paper: Life span Development

Teaching Plan for the Academic year ...... Under graduate/ Post graduate

S.	Month & No.	Week	No. of	Topics to be covered	Co-curriculum Activity
No	of Working		Periods per		
	days		week		
1	July	TAL	02	General Introduction 210lescent and Puberity HD-Major Subject Life span	
	Aug.	I	02.	development Syllabus discussion Life span development Phas	m . Obscerne 4009138/
		皿	02	0-10 013 119	•
2		W	02	Puberity concept- Defiantive	
2	Sept.	ゴ	62	Characteristics Boys-Girls Contenia of Puberity	•
	1	IL	02	Colderin - Language	Onduce orthologiens
		III	ده ک	Physical Changes in publish telect of published Change	s Problems
		IV	0 >	Adiloscent Concept, Definition and Characteristics of Adolesce	^ wh;
3	oct	I	02	Emplian of adolescent Empliand Development during	
,		I	02	adolescente, Heighented emetion	nality fine out couse
		皿	02	Emotional Development during adolescente, Heighented emetion during adolescent Stantley Hall's Views eleboration	' '
		V	02	strom and stress during	strags
1	*1.1.1	エ	Practical Clas	s. CCE I -fost Sex education	
	Nov.	I	02	Indicate and Hoperads of adolesce	nce *
			02_	Social Development alwaying adole	scence
	r	坯	02	Process of socialization. Family Relationship-concept need	s, impositance
	Dec	エ	05	Actoriation into Mister House in	· collect informa
		II	02	Effect of Family patter on adoles Adjustment during adolescence	
			02	I mue rile Dallanconch. canza 1 = 1 mbla	my treatment collication
		T	Pourtical clare	Adolestance suicide cause, Pra	برد سام
	140.	I	02	characterities and dovelopmental-	1,012,41
	:	III ]	ح ق	Interest of adulthood, Social mote	wity Phoblems and
-	ren.	11/2	mitted class	Sexuale, Adjustment.	Provide Soluntion
	- 1	サ	02	Characteristics and developmental + the blems, Empty nest, Deathorspous	nstes of old age
		m	67	CHURCH-INC AIGHIN	
		IV	02	Common old age disease	ng.

Teachers Name & Signature

Mondhulika Shinnistura.

Peter Mondhulika Shinnistura.

Session

Class: Fisc IL Years (Hiso)

Paper: Life span Bevelopment

-			,	The state of the s	
S.	Month & No.	Week	No. of	Tonics to be sourced	Co-curriculum Activity
No	of Working		Periods per	Topics to be covered	
	days		week		
1		777			
	July	JU	० र	General Introduction	
	,	10	02	Adolescent and Puberity.	
	a	I	02.	HD-Majun Subject Life span	
	Aug.			druetopment Syllabus discussi	m.
		IL	02	1 , , , ,	1 61 4141 97 1917
		III	02	Life span development that	and note charges.
		亚	0.2		
2				Puberity Concept- Definition	91
	< a. L	J	62	Characteristics Boys-Girls	
	Sept.	77	02		•
		I		Carteria of Puberity	
		नार	ر ک	Physical Changes in puberi	ly Aralyse oxidolescence
		III		Effect of puberital change	s Problems
		117	0 >	Adelescent Concept, Definition	
		IV		and characteristics of Adolese	my l
3	oct	I	02	Problem of adolescent	
	05,	1			
		II.	02	Emotional Development during	
				adolescente, Heighentedemeti	Time out couse
		III	02	and the search	al galacciana and
				Stankly Hall's views elebonation	
		.V	02	Strom and stress during	Strass
			Purachical Clas	adolescence I togt	
1	Nov. 1	ゴ	c2	Sex education	
	100	I	02_	Indicast and Horards of adolesc	
	1 25 1		, , ,	Long dates of at 40 16.20	escence Sox Pole study.
		11	62_	Social Development alwaing adel	GICENCE
	8	业	02	Process of socialization.	
	Dec	18	17	I LOWING KEIGHANGHID - CONCEPTING	ed, impositance
	250	エ	02	4 inchilery improvements increase	1 culton into
		コ	02	Effect of Family Patter on adol	egeence polytral de
		工以	02	facilist ment dusing a dolerence	et destant chication
	*	IV	Pouchical class	1) NOTE TO LINGE OF - CURSE 1 = 1 Mb	James Mous Mens
1	T	T	Learn clar	Adulthood and old age	A . A 10-7
1	Jan.	+		Changetenities and dovelopmental	Lacker -
		I	02	of activity of and a destinant	Hasks Study old age
				of early and midle adulthroad	B. alian and
		111	es live of the	Interest of adulthous, social mi	OPOCITY .
	Feb.	拉	or class	1-12	Provide soluntion.
	Ten.			I + lajustment to parenthrod, "	copause
	. *	I	01	Characteristics and developmental	Harks of old after
		せ	02	Enul de loc elder	abe I bown 62
		117	02	Cognitive charges related to a	d) nd :
		IV	02	Common old refe wisease.	
				Revision and Discussion	

Teachers Name & Signature

Mathelika Shairustarus.

Teachers Name & Signature

Mathelika Shairustarus.

B.S.III ad

Session 2023 - 24

	RC	be III.	<u> </u>
/			Paper:-Early Childhood Educa
Man	for the	Academic vens	
onth & No	The state of the s		ハスリスラーストー Under graduate/ Post graduate
of Morking	o. Weel	No. of Periods per	Topics to be covered Co-curriculum Activity
/ days		week	
	I	02	Introduction to ECE
July			Importance, Need, Scope & . Objective of ECE.
	II	02	Types of Pose school.
August	III -	03	Marte es ori kinderegerten,
1	IA	-	Montessori, kinderggerten, Balwadi, Aganwadi Center
			Play, Teaching methods
	T	0,2	Development all areas of Preparing teac
August	I	02	Children in pre selvol Physical, cognodive, Emolional - ling material kit
	III	02	development
- 1			social, Language development role of teacher's and parents
	IA	02	Learning Process- Assingenent
	I.I	0,2	Planning & Management of
0 4			a ministration of the solution of
Septemb	II red	02	Indoor & outdoor play equip
	Ш	0.2	Indoor & but door play equip -menis, Building layout Budget of nursery school
			sudget of nursery school
	TV	. 02	Curriculum of nursery school
	I	02	objective of curriculus Planning and
			of nurscry school executing of
	I	02	concept formation in activities in ECCE
sclobe	54		pre school Centers
	IT	0,2	그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그
			Activities for Cognative development
	TV	02	Activities for malhs concept
	I	02	Activities for science conc Assingment -ept, colour, size Presentation
			-ept, colour, lize Presentation
Novemb	ey II	02	A MILLIAND OF MENTER CONTRACTOR
. 10000			Science-welow, Time, regard
	III.	02	Cox Inhanting of affering
			to ECCE in India T CCIN, IAPE
	17	02	1

Mus. Shulli Singh-Joysh Teachers Name & Signature

					<u>Session</u>	
	S.Sr. III and yea			C. III sid ye	Paper:- E	orly childhorod education
		Plan	for the A	Academic ye	U. 2023 - 24 Under grad	date/ 10018
		Month & No of Working	. Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	1	days	I	02	NCERT, ICDS	Prepration of
		December	I	02	UNICEF	Prepuation of Question bank
The section of the se		Decamo	III	02	NCTE	
A CONTRACTOR OF THE PARTY OF			IV	02	Mobile creche	
A CONTRACTOR OF THE PERSON NAMED IN	2		エ	02	Importance of conceptormation	Montessori School Visit
The state of the s		January	JI	02	Pare-School	School Visit
Continue only the sections				02	Internship mark	
			IV	02	Internship work	
111	3	And the state of t	I	02	Concept of leaving	
and the same descriptions		Colonia	T	02	Nature of learning	
e de la companya de l		February	III	02	Theme based learning	
The state of the s			IV	02	Importance of them box	
4			I	02	Revisor and auestion bank solving	
	-	March	II	02	Revison	
			III		Main practical	
	The state of the s		IV		Examination	
5						
7.56						

Alway

Mus. Shuili Singh-Joygh. Teachers Name & Signature

#### <u>Session</u>

Paper: Family Guidances Courselling

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered  सिवाह पूर्व परामर्गकी आंत्रस्कता	Co-curriculum Activity
1		1st	02	तिवाह पूर्व परागर। गरा	The second secon
	December	2nd	02	विवाह पूर्व परामर्श का महत्व	
		329	02	विवाहेत्र परामर्श की आवश्यकता विवाहेत्रर परामर्श का गढ़त्व	
		4th	02	विवाहेत्तर परामरा परा पुन- पति-पत्नी सम्बन्ध	
2		15t	02	पाना पिता खालक सम्बन्ध	
	January	2nd	02	13- हिसा विवाह-विच्छेद	
		329	02	1.6- प्राह्म इत्यों का सेवन	
		4th	02	1.7- परिवार के साथ मानसिक रस सेवीमार्ट्यानित	
3	February	15t	02	कि नर्वापत स्थित में परितार एवं समाज क	
		2nd	02	1 0 C- + 1 2001 4H19	
		3	02	U-4 : परिकार कल्याण कार्यक्रम 11 अनेधारणा, स्व आन्द्रसक्ता, संबे पातध योजना, परियोजनाएं और, श्लानीतियाँ। जानीन	n Outi
		4 <sup>th</sup>	02	-17 A	
1		1st	02	बिल कर्याण	
	,	2 nd	02	माइला कर्याण	
	March	3°d	02	युवा कल्याता वृद्धि कल्याता	
		4 <sup>th</sup>	02	विकलंग / असाधारण ध्यात्र कल्याण	

Teachers Name & Similar Teachers Name & Signature

ज्याविद्यालय जवलप्र

### muman pevelopment pepartment –

#### Session

Class: - Bisc Homescience III Year

Paper: - Family Guidance & Counselling

. 10	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity	
		156	02	विवाह पूर्व परामर्शकी आतर्यकता		
	December	2nd	02	विवाह पूर्व परामर्श का महत्व		
		304	02	विवाहेत्र पशमर्श की आवश्यकता विवाहेत्र पशमर्श का महत्व		
		4th	02	प्रिं यति-पत्नी सम्बन्ध		
		15t	02	कार्यानीता व्यालक सम्बद्धा		
k	January	3 2 g		13-हिसा विवाह-विच्छेद		
		4th		1.6 - माहक इत्यों का रोनन 1.7 - परिवार के साथ मानसिक रंप सेवीमार	ट्यमित	
3		15t	The state of the s	० र नियान स्थिति में परिनार एवं समा	ज के	
	February	2nd		तिधरिक कार्क एवं उत्तका अभाव U-4- परिवार कल्याण कार्यक्रम 11 अवस्थारणा , एवं अपन श्यक्ता, श		
		3" 4th		थोजता, परियोजनार और, २०ानीति	याँ अमीनिविष	
1		1st	02	विलिकन्याण		
		2200	02	महिला कल्याण		
	March	30d	02	रीया कर्जाण कुट्ट कल्जाण		
		4 <sup>th</sup>	02	विकलंग / असाधारण ध्यात्र	<u>ज्ञिल्या</u>	
5						
		110				

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Teachers Name & Signature

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Session 2023-24

Early Childhood & Education
Early Childhood & Education
Under graduate/ Post graduate

10				1 to Activity
No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered Co-curriculum Activity
1	duys	I	06	Principles Of ECCE, Syllabus discussion, Importance of ECCE Visit to
	7.1.	亚	06	Objectives of ECCE, Types Of Montess aru
	Tuly	III	06	Pre-Schools Balwadi, Arganwadi, Play center School
		IA	06	to the unal Non-tornal Edu
2		コ	06	Contribution of the thinkers to the development of ECCE
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	II	06	Pastalozzi, Rousseau, Frabel
	August	III	06	Maria Montessori, John dewy
		IV	06	M.K. Grandhi, Ravindranath Tagore
3		T	06	Contribution of the agencies to ECCE in India - ICCW, IAPE
And the same of th		II	06	NCERT, ICDS, UNICEF
and the same of th	September	H III	06	NCTE, Mabibe Creche
		IV	06	concept of organization a administration of ECCCentre
4		I	06	Concept of organization 2 administration of ECCCentre Building 2 equipment of ECCE Centre
Agent of the second		II	06	
the manufacture of the state of	Octobe	4 711	06	ou : cottima agal 8 8
And the second second second		VI	06	L
5		I	. 06	6 Languge Ards
		I	2	6 Art and craft activities of Expression
	November	II He	I O	6 Music and Malhs activitie
		I		ob science & social science

App

Mul, Swuli Singh - L Teachers Name & Signature

ivity

#### <u>Session</u>

Class: - M. Sc. I som 2023-24

Paper:- History & thear of Human Dev ...... Under graduate/ Post graduate

Teaching Plan for the Academic ye				Under graduate/ Fost graduate/	Study in
S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered Co-curriculum Activit	lopmens
1	July	HITI	06 06 06 06	Edhological Theory-Darvin Lorenz, Tinbergen Boulby, Cross Cultural orelevance	
2	August	TIII I	06 06 06	Freudis Psychoanalytictheory Neo + Freudians - Honney From Sulivan. Learning Theory - Parlor Watson, Skinner Cognitive Development thosy	
3	Septembo	I I I I I I	06 06 06	Piagets theory  Vygotsky, 5 theory	
4	October	工工工工工	06. 06 06	Social learning & cognition theory Bandward's theory Theory of Self Mead, Kohud, Mayer Briggs Type indicator, Johan, Ka Kan Hermanis, Eastern Philosophy	
	November	ITIU		Humanistic Psychology Desiderious Gramus Sin Thomas More Developmental Hoverry	

December

How Transferred Teachers Name & Signature Affect of Machine Khandelkicus Mass Madhwi Khandelkicus

Session 2019-2423.

Class: - MSC II H.D.

Paper: (A) Infant Development and

	cing Plan for	the A	cademic year		Co-curriculum Activity
s.	Month			Topics to be covered	Co-curriculum Assert
Vo	Month & No.	Week	No. of	topics to be seemed.	
¥O.	of Working		Periods per		
	days	and the same of the same of the same of	week	c . The Millian and	· I I wash and
	-	I	06.	General Introduction and	Infant growth and
	January			Sollabus diccussion	woretopment study
		工		Neonate. meaning concept Developmental abilities. I wing I	Hancy in various settings
	,	-	06		
		711	06	May below 72 year # 9	i i
				setting - Honophomalgrowth influ	nic assum.
		IV	06	L'ANGLEIM TSYCHUL	1
		-	06	At sick condition. A tegining of attachment for mal	•••
2		エ		At nick condition and man of attach man beginning of attachment of attach attach and attach process	ment Interaction with
		I	05	Role of Father in Johnson	child and prepare
	Tebuary	1			s-franclation activity
		-111	06	11 11 Alaman of Althory	
		I		Envi interaction cultural procept	
		TV.	66	Brain Conclanding Samuelapmontal	accoment
		142		remit janguages	م المعالم
_		I	06	Need to ethodologic plant accordent.	Prepare laying
3				Isture related to infant describe pro-	Manne devolopment Plan
	March	亚	06	proof, with special oreference to India	n setting yes curid
•	Mason			- 171 1 matheway game, some	
		111	06	Traditional methods game, sony	Himskilk.
		IV	06	Task of parenting, concept of pare	
				Being a composent parter The one	their dola
			100	Being a competent parent Traditional present of trade-The one Fathering sole. Concept of Famil	<b>b</b>
4		I	06	Lamily listacycle stage	AMON CHILBREN
		Ti	06	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mu .
	April	I	00	The lot ponontal interpretation and a Chilohood Tamily Le lation and Co	mmunication alecas.
	1.75				
		亚	06.	Helping child to Eden to English und emotions. Helping child took und capacities, Extablishing with re	or berzava
				enparities, Establishing wutter	on work with Misses
		1	06	I am ma sected that dead the	1
				Meeting Family needs andering	vens Tchool
				1/0847	
		-	06.	Techniques of Parent aducation	· arask-shut and
5	May.	I	]	I you may meetings occational accord	antial Eurer-t meeting
	1	ا ا	06	without of his proposition.	1 2 1
		工		Pascote library toy library, twoods	pp. Programme
				Towards a line conta	1
		III	06	Demonstration contac.	
				Pasent's comes, opendouse	and a second
		-		Linde and Zwall weight an enough	afrons up yout
		TI	06	- pericion and assuscention	

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Teachers Name & Signature

Do Madhulika Shirastava.

शासः नाः प्रशास्त्र एवं विशास्त्र

#### Session

S: M. Sc. I Sem

g Plan for the Academic ye

2023-24

Paper:- Advanced Study in Human Levelopment ..... Under graduate / Post graduate

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ctivity

			,	Onder graduate, Fost graduate
of day	working	Week	No. of Periods per week	Topics to be covered Co-curriculum Activity
	January	I II	06 06 06	-Principles & Concepts of Grandth & development Developmental tasks. Maturation & learning
		JV	06	Individual differences, nature nutre
		I	06	Perenatal Development
	Fe boway	II	06.	Physical & mutor development
	-	TI	06	Birth Process & neonate
		IV	06	Early language, social & Counitive development
3		I	06	Terensistion formin lang to childhood
		I	06	Physical & Motor devc. Emerging soft
	March	II	06	Language Cognition 4 Gmotions ECCE, Early Socialization.
		I	06	Parenting & Cultural Processs
4.		I	06	Lale Childhard - Physial 4 motor
	j - '	I	06	deve charges & challenges Sence of inclustry & personally dove.
	Agail			Cognitive moral & language dove.
	Apoul	71)		Social relationship-Pears Siblings The Experience of Schooling.
5		T	06	- Adolescence - Transition Forom Childhood to Sexual mediurity
			I 06	+ Development of formal operation
	May	Ţ	1 00	Integration of Self-Identity
	1	-	10	Role of family. Moral marsoning Health Sexuality mental health
6.	June	,	_	- Final Exam
i.	1	CONTRACTOR OF THE PARTY OF THE	Case Strategic responsibility from Sacrategic and property and property in section 2011	

Teachers Name & Signature

Mors. Madhuri Khandelkay

### Session 2023-24

Class: - M. S.C. II Sen. (Human Development) Paper: III

ng Plan for the Academic year 2023 - 24 ...... Under graduate/ Post graduate

aching Plan for the Academic year 2023 - 24

S. No	Month & No. of Working	Week	No. of Periods per	Topics to be covered	Co-curriculum Activity
1	days		week		
	no de la companya de	I	06	The adolescent stage	
	Jasmary	II	06	Its link with late childhood and youth	
d constitution of			06	The concept of adolescence	
and the state of t		111	06	Developmental task of	
2		V	06	Developmental task of adolescence Anna Freud, kayan	
		I	06	Physical & Sexual develop	
Arrest Baltiste Baltiste	February	<u> </u>	06	Puberty, Psychological resp	
		11	06	Grender difference, sex	
3		<u> </u>	06	Cognative development	
,		エ	06	Piaget's Theory, Intellectual development awing adolescence	
	March	I	06	The Information-Processing view.	
		III	06	Reasoning, thinking outlically	
		IA	06	Judgement, Identity for nation	
4	,	I	06	Development of Self-Concept Indian views on adolescents	
	Λ	I	06	social & Emotional development	
	Apsul	TIT	06	Family, peers & friendships, Interpersonal relations, conflict with authority	
		TV		School, College, work &	
5	Maria	I	06	Training for career and work, Importantagents of influence, Family, Elethonic molis	
	May	$\mathbb{T}$	06	Mayriage , acabatic mail	
	,	TI	06	Delinquency & disturbance Juvenile delinquency	
		W	06	Depression, suicide, Aids	

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#### Session 2023-2024

Class: - M.Sc. IV 5 cm

Paper: Advanced Study in Human Development - IL

Teaching Plan for the Academic year -23-24

..... Under graduate/ Post graduate

Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
Jonuary	I	06	d boxistics of old age	
	II	06	Developmental tasks of our aging	
	II	06	change in cognitive abilities	
			Pt. 11 37	
Fabrary			Pouchological Adjustment	
	TI II	06	Financial Adjustment	
	IV	06	The state of the s	
March	T	06	The prevetivement phase	
	n	06	CIL A ALICONA FINALIULUS	
	山	06	obability phase	
		•	Unit-IV&V Unit-IV&V Parkinson's disease	
April	II.	06	Algheiner's disease, bet	
	Ш	06	h 11 - 1 4 1 1 20 8-	
	IV	06	stages of death Bereavement and grief	
5				
				,
	of Working days January Fabrary April	of Working days January I II IV Fabrary I II IV  Charch I II IV  April I II IV	of Working days  January I 06  II 06  III 06  IV 06  IV 06  IV 06  III 06  IV 06  III 06  IV 06  III 06  III 06  IV 06  III 06  IV 06	of Working days  January I of Old Age-Unit-I Characteristics of old age II of Developmental tasks of old age II of Developmental tasks of old age II of Developmental tasks of old age II of Characteristics of old age II of Developmental tasks of old age II of Characteristics of old age III of Characteristics of old age III of Impact of retirement III of Impa

th'ing

क्रिया में हैं गृह्विशान एवं विशान सहिला महाविद्यालय, जवलपुर Oldryn Teachers Name & Signature Do. Manisha Argan

Session 2023 - 2024

Class: - M.SC.IV

Paper:-II person with special Needs-IL

Teaching Plan for the Academic year .....2023 - 2024 .... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	a the same and the	1 Week	25.44 to <b>6</b> 4.45 cm	mental Retardation-meaning	which is controlled
	January	2 Week	6	Identification & classification	Day
		3 Week	6	causes & adjustment problems	Š
		4 Weex	6	adjustment problems. Learning disability	
2		1 MeeK	6	meaning and concept of learning disability	
	February	2 Week	6	characteristics of learning	
		3 Week	6	Causes of learning disability	
		4 Week	6	Identification of learning disability	,
3		1 Meek	6	Educational Provisions. Gifted children	
	March	2 Week	6	meaning & concept of gifted children	
		3 Week	6	Identification & classification of Gifted children	
		4-Week	6	Educational provisions	
4		IMEEK	6	Physical & social barriers in the development of persons with	
9	April	2 Week	6	disabilites. Modification of environment	
	-	3 Week	6	contributing member of society	
		4 Ideek	, 6	Use of assistive devices enabling participation of persons with disabilities as a contributing	
5		1 Week	6	member Person with disability Act	
	may	2 Week	6	vocational & occupational Rehabilitation Provisions	
		3 Week	6	Integrated inclusive Education Concept	
		4 Week	3	Integrated inclusive Education Provisions	

Timan DR ABHA TIWARI Teachers Name & Signature

PRINCIPAL Fort. M. H. College of Home Sc. @ .c. for Women, Jahaibur (M)

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### Human Development Department –

Session 2023 - 2024

Class: - M.Sc. III Semester

Paper: Advanced study in Human Development - I

Teaching Plan for the Academic year- 23-24

..... Under graduate/ Post graduate

S. No		Week	No. of Periods per week	Topics to be covered Co-curriculum Activity
1	15 th July to		06	Biological and development perspectives on youth and adulthood
The second secon	7th August	1	06	pevelopmental task during . adulthood.
Alfred Aller St. Vinderland on community		皿	06	Massiage and marital adjustment
2	August	I.	06	Erikson's sixth stage of Psycho-social DevIntimegy's isolation
		I	06	n in exertal trest in middle are
And the Age of States and American States and		ΠĽ	06_	Parenthood as a developmental experience Relationship with makering children during middle age.
3	September	T	06	Health& changes Meropause and andropause
-	1	#	06	male dimacteric
		玑	06	Physical changes in women and Behavioral changes
		IY	06 .	Psychological changes in man Behavioral changes.
4	October	I		Women's health probloms after Heart disease
		11		Bone loss, osteoporosis
		<b>II</b>	06	Breast cancer
		īv	06	Hoomone replacement theory
5	November	T.	G C	Stress Types of stressors
		Ī	06	Management of stress. Crists interventions - Marital disorder
	VVVVIII III	ш	06	Suicide attempts
•		ΙV	06	Disasters and death
	pecember			Final Examination

शास. मो. ह. गृह्यिकाः, एव विश्वास्थ पहिला महाविद्यालय, जयलप्र Him

Teachers Name & Signature

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### Session 2023-2024

Class: - M.SC III

Paper:- IT Person With Special Heeds - IT

Teaching Plan for the Academic year ... 2023 - 2024 ..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
***	July	Lbleck	. 6	Various approaches in defining disability	and the second superior of the second of
	July	3 MECK	6	understanding disability classification of impairment	
	_	<u>3Weck</u>	6	physical, Intellectual impair.	is .
		4 Week	. 6	Emotional, sensory impairment	
2		1 Week	6	Attitudes of people towards disability	,
	Bugast-	2 Week	6	Orthopedic & Locomotive Impairment	
		3 Week	6	Meaning and concept of orthopedic & Locomotive Impairme	pt
		4 Week	6	Identification & causes of orthopedic & Locomotive Impaisem	
3		1 Meck	. 6	Classification	
	September	2 Week	6	Educational Provisions. Visual Impairment-Meaning	
		3 Week	6	concept and Identification of visual Impairment	
		4 Week	6	causes and classification of visual impairment	
4		1 Meek	6	Educational provisions	
	october	2 Week	6	Meaning & concept of heaving impairment	
		3 Week	6	Identification & classification of hearing Impairment	<b>)</b>
de production and the production of the producti		4 Week	6	causes of problems of hearing Impairment, Educational provisions.	
5	Hovernber	1 Meek	6	Meaning & concept of speech Impairment	
	110 4 6 31) 15 6 9	2 Week	6	Identification and types of speech Impairment	
		3 Week	6	causes & problems of speech Impairment	
		4 Weet	6	Problems and Educational Provisions of Speech Impairme	nt

jour. M. H. College of Home Sc. & Sc. for Women, Jahaibur (MP)

Mina

DR ABHA TIWARI

Teachers Name & Signature

#### Session 2023-24

ssi- M. Sc III Sem

Paper:- W

III Principles of Guid

1	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Gen. Intro. 4 Syllabus discussion	
	July	п	06	meaning f need of Guid Acount	
		17	06	Deffini. 4 objectives of Guddlen	
		IV	06	Principles 4 deffere between Guid	
2		I	06	Meaning & need of Good model	
	Aug.	П	06	fundamental of Greid model	
		皿	06	Types of Guida, model	
		11/2	06	contemporary model of Gir	
3	\$ . 0	I	06	Skill of cours, process of com	
	Sep	I	06	Counseller- Couns le velationst	<b>)</b>
		D _	06	Individual Cours need of arco	
		IV	06	Croup 4 Family Coun . need 4 Arec	Ly .
4	oct.	I	06	Types of counselly.	Visit to Pariwan
		I	06	Method of County; Director County	, Paramansh Kendry.
		U	06	rendirebre como.	
		TV	06	Eleanne Cirun. difference betwee direc 4 New Dire. Com	
5	Nov.	I	66	Question. Types Marits Adama	nl <del>i</del>
		I	06	Schedule Types maints & Demail	ਰ.
		III	06	Interview, Types marits & Demai	
		Ī	06	Cummulativ Record areas Maria + demanti	1

Dee.

final Prichald Theory Exam

Away

Teachers Name & Signature

Dr. Archane Guplz

Lachar

Mostly Plans

# Human Development Department -

Session 2023-24

M. S. Ly Sem.

Paper: III Princi of Guid & Com

Plan for the Academic year ....유요고급. 그것 .......... Under graduate/ Post graduate

	Month & No.	Week	No. of	Onder graduate/ Post graduate		
No	of Working days	Ottomas and an artist of the second	Periods per week	Topics to be covered Co-curriculum Activity		
1	January	I	06	Problems & Cours. for Ado.		
		11	06			
		旦	06	old age Problems l'Deutence counselling for old age Prob.		
2		70	06	Cous. for Alcoholism & Drug abuses.		
	Pebruary	I	06	child with behavioral Prob Visit to old		
		П	66	conus. for behavioural child age home		
		TD	06	Cours. for malodjusted & Mentally		
-		<u>I</u>	06	coms. for mentally retarted		
3	march	I	06	Placement Services, need visit to rasha		
		互	06	Vocational R. Educational Place mukti Kendra		
		II	06	Aimes d objectives of fellowup		
		V	06	Types 4 Method of following		
4	April	I	06	Adventages & disadv. of follow-up		
		I	06	Personal Courselling.		
		町	06	Pre & Post marital cours.		
		1	06	family Cours.		
5	May.	I	06	areas of family Com.		
		TI	06	need dobjetives of family a		
		四	06	final posicion & Theory		
		TV	06	Exam Start.		

Aser

Teachers Name & Signature

शास भो. ह. गृहितिज्ञान एवं विद्यार

Dr-Archane Guptas

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# Human Development Department –

## Session 2019 - 2023

Class: - M.Sc. III Sem H.D.

Mestal Health and Psychopathology Under graduate/ Post graduate

	/ Class: -	M.Sc	III >64	Mental Hear grad	luate/ Post gran
1	oching Plan fo	r the AG	ademic year	July Zu	Co-curriculum Activity
rec	,	(110		Topics to be covered	
S.	Month & No.	Week	No. of Periods per		
No	of Working		week	Au Fien	,
	days		06.	General Introduction	- tudy-
1		I		Syllabus assection and cont	of defendance
	July	I	06	Mental Health, meaning, conce Importance of menta Health Importance of menta Health	Elements of
	1		m.C		rallhaing.
		III	06	well being. And Happyness.	
		I	06.	elements of bappyness. To provation	
		.11		te privation symboome, oraterna	feference study
2		エ	06	Jopanation I directment disconder	Lukan
	Quarkt	I	06	departation stacks and adjustment disposition	stress reduction
	August	亚	06	Categorice of The Erro Ctives?	-tackonique
			06	Strenty of Stole	a propagation
			Uβ	Claress, I confinally	
				Characteristics of transing Bedavious, concept of learning	
3	September	I	ø6 ·	IN I WIND DELIVERY !	
	)	I	06	Allesmat telanous problems	<pre>&lt;+udy Childhood</pre>
				Linder Child - PJ706 (COR)	Chianua Lines
		,III	06	ADHD, emotional problems.	behavious problems
		I	06.	Child deliquency ikacemon.	
				Revision and of	
4		I	06	Psychosocial model of	To study
	October.			psychopathology.	power of, concious
		I	06	Fraud concept of psychoandy	15 power of and
				Psychopynamic model.	Subconcious, and Unconcious mind
		III	06.	Betwiener model.	Dycoucing.
				Capacitive model (Piaget)	
	,	IV	06.	Cognitive model (Piaget)	277
5	Nov.	I	06.	Psychotherapies.	C13T
	1444	II	06	Psychodynamic therapy	Analysis .
			<i>0</i> 6	Behaviour therapy.	
		111		Cognitive behaviour	
		卫	06	the KINY (CRT)	
				perission and discussion.	
				The second secon	

Madhulika Shawastara.

#### <u>Session</u>

Class: - F. Sc I Year (H.Sc)

II HD Majos.

Paper: Life span. Development

S. Month & No. Week No. of Periods per days Week No. of Periods per week	Tea	aching Plan fo	r the A	cademic yea		to Jum Activity
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days  Week  General Introduction  Auditorial Charlesian  Auditorial Charlesian  The color of and Raberian  Auditorial Charlesian  The color of and Raberian  Auditorial Charlesian  The color of the Major State Charlesian  The color of the Charlesian of Raberian  The color of the Charlesian of Raberian  The color of Raber	S.		Week		Topics to be covered	
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The state of the state of the state of old age of the state of the sta		Dec	エ	02	related Fruity battan on adolegi	دومرد معامليما عاجمي
Juve in le Deliguency-cause, symptoms than went could a de la Juve in le Deliguency-cause, symptoms than went could a de la Juve in le Deliguency suicide. Cause, provention de la deliguence suicide. Cause, provention of Adolestance suicide. Cause, provention of Characteristics and developmental lasks study ald age of early and middle adulthood. Problems and Interest of adulthood, sacial motheristy.  The provide solution of the parameterist of the solution of the parameterist of and developmental tasks of all agent the last blems, Empty nest, Deatholspouse, Localiness  The could blems, Empty nest, Deatholspouse, Localiness  The could be the closure at lated to agent of the country old agent of the closure of the closure.			I	02	Adjustment dusing adolescence	aluation
Jan.  Jan.  Jan.  Jan.  Characteritis and developmental asks Study old aga a gasty and midle adulthood.  Phoblems and process of adulthood.  The tracked class six yole, Adjustment.  Phovide soluntion  To or characteristic and developmental tasks of old against the box blems, Empty nest, Deatholspouse, Localiness  The cross of the elderly  Committee characteristic against.			ヹ	02	Time wile to limboney - couse , = ymptor	ns that went concerning
Jan.  Jan.  Jan.  Jan.  Characteritis and developmental asks Study old aga a gasty and midle adulthood.  Phoblems and process of adulthood.  The tracked class six yole, Adjustment.  Phovide soluntion  To or characteristic and developmental tasks of old against the box blems, Empty nest, Deatholspouse, Localiness  The cross of the elderly  Committee characteristic against.			.11/	Paulical Class	Adolestance Suicide, cause, Pudi	ve who
The control of the characteristics and developmental tasks study old age of early and middle adulthood. Phoblems and Interest of adulthood, social maturity.  The tracked class six yole, the just arent.  The control of parcial tracks of old age.  The blems, Empty nest, Deatholspouse, localiness  The court of the elderly.  The common old age disease.	5	1	I	C)		•
The proched class of early and middle adulthood, Social maturity problems and  The proched class six yole, Adulthood, Social maturity  The proched class six yole, Adjustment to parenthematic of old age.  The proches of the class of old age.  The proches of the class of the agent of the class of the agent of the class of the class of the agent of the class of the clas		700.		02	( the activities and dove 10 pmental-1.	asks study old age
The souther class of adulthood, Social maturity  Frouther Class Sex gote, Hujurtaient.  The souther classes of adulthood, Moropause  The southerness of parenthrough a propagate  The southerness of the elderly  The southern			4	-	of pasty and middle adultinood	De ablance and
The control class Stanole, Hajurtaniant  of the property of the parenthrod, Mesopause  The control of the parenthrod pouse, localiness  to bland, Empty nest, Deathol spouse, localiness  The court of the elderly  The control of			III		Interest of adulthood, Social MATH	UNITY .
The state of the elderly  The comment of are disease to againgt the comment of th			-		Six role Hajuriant.	10,000
the common old are disease		teh.		01	+ Idiustrust to Paranthrod, 1000	opause
IV 02 Common old are disease				01	Alexander and alexander to the	They by Olds after
IV 02 Common old are disease.				02	Every of the elders.	
It of Conniva old aft alkease				c2	Cognitive changes welated to agin	~g- '
HENIPHEN ONE DICHALDON			IV	02-	Commun old aft alkease	V .
					Kentrum and Discharmon	d ~.

Machulika Shrivastura. Teachers Name & Signature सिक्त महाविद्यालय जयस्त्रपुर

### Session

Class: - Forsc II Year (450)

Paper: Life span Jevelopment

and the same of	The same of the sa	The second second second	The same of the sa	and the state of t	Co-curriculum Activity
•	Month & No.	Week	No. of	Topics to be covered	
lo	of Working		Periods per		
	days		week		
,	77.1	JUL	0 <b>1</b>	General Introduction	
	July	10	02	Adoleccont and Puberry	
	,	1	02	III haddan Sublet	
	0	I	02	dredoment Syllabus chiscussis	m ·
	Aug.	17	45	Life span development thas	b bacerre 400sixiii
	,	II	07	o to old age	and rose cruder.
		III	02	Puberity concept- Defiantix	n
		TV	02	PUBERTY CONCERNATION	
2		1	62	Characteristics Boys - Girts	
	Sept.	-		Citaria of Puberity	
	1	工	02	of the Change in Buheni	V Abulyse of do las cond
			02	Inystlal changes in process	k Problems
		III		Physical Changes in publish  Effect of published change	
		-	00	Adelescent Concept, Definition and Characteristics of Adelesc	links
	2	IV		and Characteristics of Frederice	
3	<del>                                     </del>	<del>-</del>	02	Problem of adolescent	
-	oct	I		Emotional Development during	lithy T
		I	02	Emotional Development during adolescente, Heighented emetion during adolescent	hary time out louse
				during adolescent	of agression and
		III	02	16 Factor of House Me and Care	Stucies
		1	02	Strom and Streets out of	حادث
		.IV_		adolescence I toch	
			Practical Clas	Stx education	
4	Nov. 1	ーゴ	C2	these and Harried of a dolesce	hae .
	1.0-	I	02	Indicate and Hazards of a dolesce	scene Son Role study.
		111	82_	Social Development alwing adele	
				Process of socialization. Family Relationship - concept noe	1 insportance
		卫	02	Family Relationship - concept nee	مر العرابين
	Dec	I	02	Detariation injamily relations	· (vilco=1)faria
		I	02	Effect of Family patters on adole	ecence notated to Se
		TIS	02	thusing reliminary - couse I sympt	ometreatment courant
		IV	Pouclical clas	Effect of Family Patters on adole Adjustment Justing adolescence June 19 - couse, 54mpt Adolescence Chicade. cause, Pr	ave vion
5		I	118007 COCI CIAN	and the find and old are	1 •
	Jan.		02	(1 , Leville and developmental	lasks study old age
		I	1	on enclusional middle advissing a	1
		III	02	Interest of adulthonal, social ma	1000174
		1	Prochial Class	Carrota Atomorphism	1 '''
	teh.	拉	02	1 Alice I al Bara Alberta Co	so youse
		I	02		
		せ	02	- byo Plens 'Exhibit use L' Device L'	561
		1	02	Cognitive changes is lated to as	had.
		IV	02	Common old age disease.	4.4

Ma Hulika Shirustaux.

### <u>Session</u>

Class: - Fisc I Year (H.Sc)

Paper: Life span Development 

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	uate/ Post graduate  Co-curriculum Activity
1	July	IVI	01	(	
	/	TV	02	General Introduction	
		I	02.	Adoles cont and Puberity.	
	Aug.	-		HD-Major Subject Life span	ſ
	4	IL	02	Life span development phase of old age	n •
		III	02	rige span development by as	6 apserve 1802/26/
		亚	02	Pubacity Carried &	and role charges.
2		I	62	Puberity concept- Definitive	n
	Sept.	1 4		Characteristics Boys - Girls	
	1	IL	02	Carteria of Puberity	•
		, , , , , , , , , , , , , , , , , , ,	02	Physical Changes in publish	Arabia
		III	1	Effect of puberital change	S TIL
		IV	00	Adolescent Concept Delinini.	\$ Problems
3		10		Adelescent Concept Definition and Characteristics of Adelesc	mbs
3	oct	I	02	Problem of adolescent	
				Emplimal Nevelorment during	
		I	02	adolescente, Heighentedemetic	shality Fina out cour
		TII.	02	1	1 .0 ^. )
				Standby Hall's views eleboration	
		IV.	02	Stoom and streets during	Strags
4	-	-	Practical Cla		
7	Nov. 1	ゴ	C2	Tex sopriation	
		I	02	Indust and Hazards of adolesce	
		III	82_	Social Development alwaing adel	escence Sex Pole 51
		IV	02	Process of socialization.	
	Dec		1	Family Relationship - concept no	ed, impositance
		ゴ	0.5	- Detariation rayamily relationship	adam in
		工工工	02	Effect of tamily patter on adole Adjustment during adolescence	1 0 (014) 68
	,	TV	02	True rile Daliguench - canza 1 = Amb	tomsthantment chuca
5	-	T	Pouchical cla	Advithed and old age	474 VIII
	Jan.		02	Characterities and dove lopmental	Hacks shull all
	1	I	02	of easily and middle adulthood	1 7 5 12 5
		III	62	Interest of adulthood, Social ma	their man
	1	拉	Practical Clas	S Six wole, Adjudant.	670 NIGE 7011
	teh.		02	+Adjustment to Parenthrod M	copause
		1	01	Characteristics and developmental Prublems, Emptynest, Deathorspo	marks of old after
		1#	02	I caucy of the elderly	
		IV	02	Common old age disease.	Aint.
			02	Benjam and Discherson	` <b>\</b>
	•			11.	

Teachers Name & Signature

Machilles Shairastara.

Machilles Shairastara.

# Human Development Department -

# Session

BSC II HEC

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	(Month 9 a)	THE A	cademic ye	Zolg. Paper:- Communication a.
0	Month & No.	Week	No. of	Under graduate/ par
F	of Working days		Periods	Topics to be covered
			Periods per week	to be covered
	July. 19	IV		Co-curriculum Activity
	ł.		03.	Sylal
	August	1		Syllatus discussion
			03	Analysis of Family
		I	03.	Thit. social tanily as a social
		T		Analysis of Family as a social Last. Social orelation to Envi. Tarrily type In helalian to Ecopie and regulation Study
			6.3	nelation to explice it
	5.	14	0.3	The Down of the Control of the Contr
	Sept	工	03	Different of wells
		I	চই	The state of water
		III	1	Familian Frederical - Pessonal Collection
		IV	03	Familian : social Collect antical
	Oct-	I	6.3	and National Penspectives. on Homen Employe
		II	03	and the form of the first
-	<del>                                     </del>	TI	03	Mexico-concert
		IV	03	tram sex
	Nov.	工		Genden issues
			03	Personality development and Gender sole
		I	03	Personality development meaning study.
		III	03	1. The tarture in the
		IV		Personality development
_		1	6.3	
	Dec	工	03	Conflicts and stress
		工		types of Stress, causes,
		1	03	Simple coping storategies Collect information
		皿		The construction of Soil
		IV	03	Strength on street.  Management
	Jan	工	63	Method of solving these mulling technique
		正	v 3	4 mas property
			~ 3	Home-Science education as
-		गुरा	05	Empowerned-
		IV	03	The Role of Home. Sciente education
	Feb.	I	03	- should should be and professional study flome
	•		0,1	Correlation The internation Science of
		11	03	of HEL education with science lumeace Science
		-11		
		11		displine. Perisin. Subject.
			03,	Revision class III weekd tob.

Teachers Name & Signature

Madhulika Shivas lava,

Mining Hellering.

#### Session

Class: - B. Sc. IIndy con

2024-25 Paper: Community Development

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Historical background of Community	
	4.1	I	06	Concept, Meaning & definition of Commit	,
	July	II	06	objective & philosophy of c.D.	
		II	06	Elements Principles of C.D.	
2		I	06	C.Da- Process, Programe	
	Ayzust	I	06	C.J. as-Method, movement	
	1100	III	06	Area ofactividies of C.D.	
		TV	06	Phases of Community development	
3		I	06	Rural Community, Introduction	×
	September	I	06	l'ével ership - Meuning, characteristics	
		I	06	Types of leadership, styles	
		I	06.	Method of leardership	
4		I	06.	Role of lender	
	October	I	06	Community deve Programe Origin	
	OCHODA	TIL	06	Perogramme Planning - Steps	
			06	Implementation	
		IV	00	Evaluation: - Importance Method	
		I	06	Evaluation - Balvant Rai Granifice	
The state of the state of		II	06	Sc. Dubey, Grovind Sohay	
	November	11	06	Panchayadi Ray System	
		IV	06	Achievenated failures of	

Teachers Name & Signature CD

### Session

Class: B. Sc. IIndyan 2029-25 Paper: Community Development

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Administeration of CDP-	
	December	I	.06	Centere, State, Dist. Block leve	J
		I	06	Community Organization	
		W	06	Concept, Philosophy Types.	
2		I	06	Community Organization Step	ς.
	1	I	OG	Role of Community ong worke	
	January	II	06	Development Porogramme	
		TL	06	Current Grove . Schones.	
3		I	06	Girant National deve Programme	
A Company of the Park	Fale	I	OG	NDP-For Hewlth	
	February		06	NOP for Nubritian	
	•	T	OG	NOP for Women	
4		I	06	Test & Revision	
	March	I	06	Extention work	
	Dicer	II	06	Poroject/Internship	
		W	06	Paractical Exam	
5		,			
THE REAL PROPERTY.					
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Teachers Name & Signature

Mers. Madhuy Khandelkay

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Session

Class: - B. Sc. IInd year

2023-24

Paper: Community Dovelopm

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Historical background of Community	
	4. 1	I	06	Concept, Meaning & definition of Commit	j
	July	山	06	objective & philosophy of c.D.	
		II	06	Elements, Principles of C.D.	
2		I	06	C.Da- Process, Programe	
	Ayzust	I	06	C.D. as-Method, movement	
	11.0	111	06	Area ofactividies of C.D.	
		TV	06	Phases of Community development	<b>f</b>
3		I	06	Rural Community, Introduction	
	September	$\mathbb{I}$	06	l'éactership-Meuring, characteristic	S
	*	Ī	o G	Types of leadership, Styles	
		I	06.	Method of leardership	
4	3 1 1	I	06.	Role of Tender	
	October	I	06	Community deve Programe Origin	1
	OCHORG	TIL	06	Programme Planning - Steps	
			06	Implementation	
		TV	06	Evaluation: - Importance Metha	<i>‡</i>
5		I	06	Evaluation - Balvant Rai Granifica	THE RESERVE OF THE PROPERTY OF THE PARTY OF
		I	06	Sc. Dubey, Grovind sohaly	
	November	I	06	Panchayati Ray System	
		I	06	Achievanus & failures of	

Wartena Landar

Teachers Name & Signature

Mis. Madhin Khandelkon



### Session

Class: - B. Sc. Indyen

eaching Plan for the Academic ye

2023-24 Paper: Community Development

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Administeration of CDP.	
	December	I	.06	Centere, State, Dist. Block leve	j
	1	TH	06	Community Organization	
		TV	06	Concept, Philosophy Types.	
2		I	06	Community Organization Step	<i>c.</i>
	January	I	06	Role of Community ong worke	
	Janowiy	III	06	Development Porogramme	1
		TL	06	Current Grovd: Schones.	
3		I	06	Current National deve Programme	
	February	I	OG	NDP-ton Health	
	1 3.5		06	NOP for Nutritian	
		W	OG	NOP for Women	·
		I	06	Test & Revisión	
	March	I	06	Extention work	
		皿	06	Peroject/Internship	
		T	06	Practical Exam	
		,			
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Madhuj Khandelkan

Session

Classi. B. Sc. IIndycon

2022-23 Paper: Community Developme

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Historical background of Community	
	1.1.	I	06	(oncep), Meaning & definition of amount	1
	July	山	06	objective & philosophy of c.D.	
Y		W	06	Elements Principles of C.D.	
2		I	06	C.Da- Process, Programme	,
	Ayzust	I	06	C.D. as-Method, movement	
	, , ,	山	06	Area ofactividies of C.D.	
		TV	06	Phases of Community development	4
3	granus and the second s	I	06	Rural Community, Introduction	
	September	I	06	l'éactership-Meuning, characteristic	5
			06	Types of leadership, Styles	· :
		W	06.	Method of leardership	
4	And provided in the Contract of the Contract o	I	06.	Role of Tenden	
	October	I	06	Community deve Programe Origin	1
	OCIODOS	TII	06	Perogramme Planning - Steps	
			06	Implementation	
		TV		Evaluation: - Importance Metho	/
5		I	06	Evaluation Balvant Rai Granifica	
		I	06	Sc Dubey, Grovind Schay	
	November	1	06	Panchayadi Ray System	
		I	06	Achievanats of failures of	

Teachers Name & Signature

Mis Madhui Khandelkon

Session

Class: B. Sc. Indyan

2022-23

Paper: Community Development

eaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activit
L		I	06	Administeration of CDP.	
	December	I	.06	Centere, State, Dist. Block leve	
		TH	06	Community Organization	
		W	06	Concept, Philosophy Types.	
		I	06	Community Organization Step	
	January	I	OG	Role of Community ong worke	<b>,</b>
	Janowly	II	06	Development Porogramme	1
	•	TL	06	Current Grove Schones.	
		I	06	Circuit National deve Promoune	
	February	I	OG	NOP-ton Health	
and the same	1 our way		06	NOP for Nubritian	
	•	I	OG	NOP for Women	
-		I	06	Test & Revisión	
	March	I	06	Extention Work	
		11	06	Peroject/Internship	
		W	06	Practical Exam	
	:		,		
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तारो तिकारिकchers Name & Signature ers. Madhung Khanolelkan

Session

Class: - B. Sc. IInd year

2021-22 paper: Community Developmen

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Historical background of Community	
	4.1	I	06	(one cp), Meaning & definition of Committed	y
	July	II	06	Objective & philosophy of c.D.	
		W	06	Elements Principles of C.D.	
2.		I	06	C.Das- Process, Programme	
	August	I	06	C.D. as-Method, movement	
	, , Ø	III	06	Area ofactividies of C.D.	
		TV	06	Phases of Community development	<del>)</del>
3		I	06	Rural Community, Introduction	
	September	I	06	l'éadership - Meuring, characteristic	5
		TIL	06	Types of leadership, Styles	
		I	06.	Method of leardership	
4		I	06.	Role of lender	
	October	I	06	Community deve Programe Origi	i H
	OCHOPS	II	06	Programme Planning - Steps	
			06	Implementation	
		TV		Evaluation: - Importance Metho	
5		I	06	Evaluation Balvant Rai Countiffe	
		I	-06	S.C. Dubey, Grovind Sohaly	
	November	I	06	Panchayati Ray System	
		I	06	Achievenants & failures of COP.	

Teachers Name & Signature

Mors. Madhui Khandelkos

Session

Class: B. Sc. Andyen

eaching Plan for the Academic ye

2021-22 Paper: Community Development

..... Under graduate/ Post graduate

S. No	Month & No. of Working	Week	No. of	Topics to be covered	Co-curriculum Activity
1	days		Periods per week	• • • • • • • • • • • • • • • • • • • •	,
1		I	06	Administration of CDP.	
	December	I	.06	Centre, State, Dist. Block leve	4
		TH	06	Community Organization	
		W	06	Concept, Philosophy Types.	
2		I	06	Community Organization Step	
	January	I	06	Role of Community ong worke	
	Janowig	Ⅲ	06	Development Porogramme	7
		TIL	06	Current Grove & Schones.	
3		I	06	Girant National deve Programme	
	February	I	OG	NDP-for Health	
	Curacing	1	06	NDP for Nubritian	
	•	W	OG	NOP for Women	
4		I	06	Test & Revisión	
	March	I	06	Extention Work	
			06	Peroject/Internship	
And the second of the second of		W	06	Practical Exam	
5					
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Teachers Name & Signature rs. Madhuni Khandelkan

### Session

B. Sc. IIndycon

Paper: Community Dovelages

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Historical backgeround of Community	
	41	I	06	Concept, Meaning & definition of Commission	
	July	II	06	objective & philosophy of c.D.	
		W	06	Elements Principles of C.D.	
2		I	06	C.Das- Process, Programme	
	Ayjust	I	06	C.D. as-Method, movement	
	1 (00)	III	06	Area ofactividies of C.D.	
		TV	06	Phases of Community development	<i>f</i>
3		I	06	Rural Community, Introduction	
	September	I	06	l'éactership - Meuring, charaderisti	
		T	06	Types of leadership, Style	
		W	06.	Method of leardership	
4		I	06.	Role of lender	
	October	I	06	Community deve Programe Origi	ĥ
	OCHORG	II	06	Perogramme Planning - Step	
			06	Implementation	
		IV		Evaluation: - Importance Meth	of
5		I	06	Evaluation - Balvant Rai Granifi	re e
		I	06	S.c. Dubey, Grovind Sahay	
	November	I	06	Panchayadi Ray System	
		I	06	Achievonate & failures of	

Teachers Name & Signature

महाविद्यालय जवलपुर

referred to Paris Mors. Madhin Khandelkan

### Session

Class: - B. Sc. Indyen

reaching Plan for the Academic ye

Paper: Community Development ..... Under graduate/ Post graduate

Month & No. of Working days	Week	No. of Periods per	Topics to be covered Co-curriculum Activity
	I	06	Administration of CDP.
Decomber	I	.06	Centre, State Dist. Block level
00000		06	Community Organization
	W	06	Concept, Philosophy Types.
	I	06	Community Organization Steps
1	I	OG	Role of Community ong worker
Janvary	II	06	Development Perogramme
	TIL	06	Curront Grovdi Schones.
	I	06	Circut National deve Programme
Fohe man	I	OG	NDP-for Health
Personal	200	06	NOP for Nutritian
•	IV	OG	Not for Women
	I	06	Test & Revisión
March	I	06	Extendior Work
poteri	II	06	Peroject/Internship
	TV	06	Poractical Exam
,			
:			
		Janvary II	of Working days  I OG  OG  OG  OG  Janvary  Janv

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### Session

B.Sc. II

2024-25 Paper:-Personality Development

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	03	Dynamics of Personality	
	Novembo	I	03	Nature & Determinants	
		II	03	Clussification of Personali	<b>Y</b>
-		IV	01	Practical Work	
2		I	03	Techniques of P.D.	
	December	II	03	Self Control, Self resilence, esteon	
		面	03	fuctors affecting assertiveness	
		I	01	Practical work	
		T	03	Interviews Skills, Pro-Social beter	hy
Marie September	January	I	03	Life Skills, Social indelligence	
Control of the Control	01.0	卫	03	Ea, spa.	
		I	01	Practical Work	
		I		File checking work	
	Ephoary	I		U	
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Darler maris Teachers Name & Signature Maelhui Khandelkey

### <u>Session</u>

ss: B.Sc. II

2023-24 Paper:-Personality Development

aching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	03	Dynamics of Personality	
	November	I	03	Nature & Determinants	
		I	03	Classification of Personalin	y .
2		W	01	Practical Work	
٤		I	03	Techniques of P.D.	
	December	II	03	Self Control, Self resilence, esteon	
		面	03	factors affecting assertiveness	
		IV	01	Peractical werk	
3		I	03	Intervious Skills, Pro-Social belo	uly
	January	I	03	Life Skills, Social indelligence	
	,	I	03	Ea, spa.	
		IV	01	Practical Work	
4		1		File checking work	
	February	I			
	,	111		-h-	
		I			
5				-	
			7		

Teachers Name & Signature

Manual Canada Caracter Cros Machini Khandelkas

### <u>Session</u>

si- B.Sc. II

2022-23 Paper:-Personality Development

..... Under graduate/ Post graduate

ning	Plan	for	the	Academic ve
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Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
	I	03	Dynamics of Personality	
November	II	03	Nature & Determinants	
	II	03	Clussification of Personali	v
	IV	01	•	
	I	03	Techniques of P.D.	
December	II	03		
·		03	factors affecting aisortiveness	
	IV	01	Practical work	
	T	03	Intervious Skills, Pro-Social beh	,
January	I	03	•	
-1	亚	03	Ea, spa.	
	IV	01	Practical Work	
	I		File checking work	
February	I			
	111			
	IV			
Special and Control of the Control o				
	of Working days  November  December	of Working days  November II	of Working days  I 03  November II 03  II 01  II II III	of Working days  Periods per week  I 03 Dynamics of Personality  November II 03 Nature & Determinands  II 03 Classification of Personality  Practical Work  I 03 Techniques of P.D.  Self Cubrol, self-resilence, esteon  fuctions affecting assortiveness  TO 1 Practical Werk  I 03 Jutenviews Skills, Pro-social tele  January II 03 Life Skills, Social idelligence  EQ. SPQ  Practical Work  File Checking Work  File Checking Work  File Checking Work

Teachers Name & Signature

Warrand ra Raphy . Madhur Khandelkay

Class: - B.Sc IInd year

Paper: Personality Development

### Teaching Plan for the Academic year -24-25

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	October	T	03	Dynamics of Personally	
		T	03	Determinents of Personality	
		11.1	03	classification Jung sheldon	
		JV	03	Krelsihmer & 5- factor theory	
2	November	I	02	Sufcontrol Sulf resilience	
		<b>II</b> _	02	Self steem, factors-assertimess	
		III	02	Prosocial behavior interpersonal relationship isses,	
etras con	Management of the control of the con	IV	02	Inverview skills.	
	December	T	02	SQ-Social Intelligence & P.D	and the second s
		#	02	SQB EQ Social Intelligence & PD	
		II	02	EQ-Emotiral Intelligence & P.D	
		IV	02 .	Spiritual Intelligence & PD (SPR)	
	January	Γ	02.	Spiritud Intelligence & PP(5PQ)	
	· ·	-			
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Craryon Teachers Name & Signature Dr. Manisha Arya

शास. मो. है. गृहियजीन एव विजात

Class: - B Sc II hd year

Paper: Personality Development

# Teaching Plan for the Academic year-23-24

# ..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activit
1	October	I	03	Pynamics of Personally	
		1	03	Determinants of Personality	
		111	03	classification Jung sheldon	
		IV	03	Kretschmer & 5- factor theory	
2	November	I	02	Self control Self resilience	
		11	02	Self steen, factors-assortioness	
		III	02	Prosocial behavior interpersonal relationship isses,	
	and contribute to the second contribution of the	IV	02	Inverview skills.	
	December	T	02	SQ-Social Intelligence & PD	
		11	02	SQB EQ Social Intelligence & PD	
		<b>I</b> I	02	EQ-Emotiral-Intelligence & PD	
		IV	02.	Spiritual Intelligence & PD (SPR)	
	January	T	02.	Spiritual Intelligence & PP(5PQ)	
	<b>4</b>				
-		-			
	*				
	1.				

Teachers Name & Signature Dr. Manisha Arya

शास. मो. ह. गृहविज्ञान एव विज्ञान महिला महाविद्यालय, जबलपुर

#### Session 2022 - 2023

Class: - BSC II nd YEAT

Paper: Personality Development

Teaching Plan for the Academic year - 22-23

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	October	T	σ3	Pynamics of Personally	
		I	03	Determinants of Personality	
		111	03	classification Jung sheldon	
		IV	03	Kretrichmer & 5- Factor theory	
2	November	Γ	02	Self control Self resilience	
		IL	02	Safsteen, factors-assertimess	
		III	02	Prosocial behavior interpersonal relationship isses,	
		IV	02	Inverview skills.	and the second s
3	December	T	02	52-Social Intelligence & PD	
		11	02	SQB EQ Social Intelligence & PD	
		11	02	EQ-Emstind Intelligence & PD	
		IV	02.	Spiritual Intelligence & PD (5 PR)	
4	January	T	02.	Spiritual Intelligence & PP (5PR)	
	Q				
			And the second s	The state of the s	
	•				
		•		A CONTRACTOR OF THE PARTY OF TH	и.

Teachers Name & Signature

Dr. Manisha Arya

शास-नो. ह. गृहविज्ञान एव विज्ञान महिला महाविद्यालय, जयलपुर

Session 2024-25

Class: B.S (III) 2.8 -: 2261)

Paper:-Early Childhoral Education

Sching Plan for the Academic year 2024-25 ...... Under graduate/ Post graduate

Month & No. | Week | No. of

5	Month & No.	Week	No. of		and an artist of the second se
10	of Working		Periods per	Topics to be covered	Co-curriculum Activity
	days		week		
7		I	02	Introduction to ECE	region files on references to compare to their exportance conference on the electric state of the second s
	July			Importance, Need, Scope & Objective of ECE.	•
	0	II	0.8	Types of Pore School.	
	August			types of the same	
	,guse	III	ంక్ష	Mortessori, kinderggerten, Balwadi, Aganwadi Center	
		IA	02	Play, Teaching methods	4 =-
2		I	0,2	Development all areas of	Preparing teac
		711-	0.0	children in pre school	Posepassing teac -hing material kit
	August	II	02	Physical, cognative, Emolional development	
	V	I	02	Social, Language development role of teachers and prients	
		w	0.0		
-		IA	02	Learning Process - Assingener	THE RESIDENCE PLANTS OF THE PROPERTY AND ADDRESS OF THE PARTY OF THE P
3		I	0,2	Planning & Management of	
	0 4 1		- 1	a nursely school	
	Leptember	I	02	Indoon & outdoon play equip -merils, Building Layout	
		III	02	Budget of as assert delivered	
				Budget of nivesery school	
		TV	02	COURCILIN 07 MIREOR School	
4		I	02	objective of covericulary	Planning and
				of nurscry school	executing of
		II	02	concept formation in	activities in ECCE
	october			pre school	Centers
		TIT	0,2	Activities top Cognative	
				development	
1	W-	IV	02	Activities for malhs concept	
5		I	02	Activities for science conc	
		-4-		-ept, colour, lize	D. diam
	November	TT	02	Activities for males and	Tresentation
	100000			Activities for malhs and science - weight, time, length	
		Ш	02	Continuous of agrences	
				to ECCE in India	
		10	02	I CCIN, IAPE	And the second recommendation would be work as the companies.

Mus. Struti Singh-Lingh Teachers Name & Signature

### Session

B. S. 1. TT and Year Paper: Early Childhord Edu, an for the Academic year 2024-25 ...... Under graduate/ Post graduate

	oth & No.	The Contest of the Contest of	A STATE OF THE PROPERTY OF THE PARTY OF THE		
	of Working	Week	No. of	Topics to be covered	Co-curriculum Activity
	days		Periods per week		
A		I	02	Introduction to ECE	
4	July			Trinoviance Neod Scope &	
	July	71-	20	objective of ECE.	
	Λ.4	II.	OR	Types of Poie School	
	August	皿	03	Montessori, kindergarten, Balwadi, Aganwadi Center	
	~	IA	02	Plant Teaching and thoda	
2		T		Play, Teaching methods Development all areas of	
		+	0,2	children in pre School	Priepasing teac -hing material kit
	August	II	02	Children in pre Leberol Physical, cognetive, Emolional	-lung material KIF
	0	III	02	development	
				social, Language development role of teachers and pavents	
		IA	02	Learning Process: Assingence	
3		工	0,2	Planning & Management of	
				a musely school	
	September	I	02	Indoor & outdoor play equip -ments, Building Layout	
		III	02	Re to the day and there	
				bugget of nivesery server	
	1	TV	02	Curriculum of nursery school	
4.		I	02	objective of covericulary	Planning and
	•			of nurscry school	executing of
		II	02	concept formation in	activities in FCCF
	October			Pre school	Centers
		Ш	0,2	Activities for Cognative	
		111		development	
		IV	0,2	Activities for males concept	
5		I	02	Activities for science conc	
		-		-ept, colour, lize	Assingment Bresentation
	November	工	02	Activities 204 noths and	
	1000we			Evience - weight, time, length	V
		III'	02	Contribution of agencies	
				Lience-weight, time, length Contribution of agencies to ECCE in India	
	1	TV	02	I CCIN, IAPE	1

Alway

Mrs. Swuli Singh - Sight Teachers Name & Signature

Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Controlled Post graduate Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Controlled Post graduate Controlled Post graduate Paper:-Early Childhood Education Controlled Post graduate Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Controlled Post graduate Controlled Post graduate Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Controlled Post graduate Post graduate Post graduate Paper:-Early Childhood Education Controlled Post graduate Controlled Post graduate Paper:-Early Post graduate Paper:-Early Post graduate Post gr			4	. 1	Session 2023 - 24
Plan for the Academic year 2023-27		B	.) 2.	be II	Paper:-Early Childhood Education
July  I CR Titroduction to ECE Imperiance, Need, Suspe 2 objective of Indexing and Content IV OR Play, Inculting methods  IV OR Development all areas of Preparing teac Children in pur salverol Preparing teac Children in pur salverol Preparing teac Children in pur salverol Preparing material kit development IV OR Planning Process-Assingence IV OR Planning Process-Assingence IV OR Planning Management of a number salverol IV OR Courticulum of numsery subso IV OR Courticulum of numsery subso IV OR Convert formation in activities in ECCE Convert formation in activities in ECCE Centexs  IV OR Activities for Lience conc -ept, Colavel, Lize  November II OR Activities for Maths and Lience—Leight, Tine, Leight Contribution of agencies to ECCE in India					H 2023-24 Under graduate/ Post graduate
Tuly  II Or Types of Price School  August III Or Rod Read, stope & Original Read Read Read Read Read Read Read Read	4	of Working	Week	Periods per	
Monitessan, Kinganisad render Balward, Agamisad render Balward, Agamisad render Play, Teathing methods  To 2 Development all assess of Children in president August II or Development all assess of Children in president August II or Development all assess of Children in president August II or Development II or Development III or Rearring Process and process III or Rearring Process Assingued III or Rearring Stand III or Consept formation in activities in Ecce Oncept formation in activities in Ecce Centers III or Activities for Legislative development IV or Activities for males concept Activities for males concept Activities for males and being a prices to Ecce in Innation III or Constitution of agencies To Ecce in Innation	A	July	I	02	Introduction to ECE Importance, Need, Scope = .
Monitessan, Kinganisad render Balward, Agamisad render Balward, Agamisad render Play, Teathing methods  To 2 Development all assess of Children in president August II or Development all assess of Children in president August II or Development all assess of Children in president August II or Development II or Development III or Rearring Process and process III or Rearring Process Assingued III or Rearring Stand III or Consept formation in activities in Ecce Oncept formation in activities in Ecce Centers III or Activities for Legislative development IV or Activities for males concept Activities for males concept Activities for males and being a prices to Ecce in Innation III or Constitution of agencies To Ecce in Innation		0	II	02	Types of Poce School.
Development all areas of Prepasing teac children in prestatoral hing material kit development and present hing material kit development and parental lim or social Lagranguage development and parental lim or social Lagranguage development and parental lim or learning Process - Assingered lim or process play equip - needly, Building layout lim or musery school lim or conviculum of nursery school lim or musery school limites in Ecce (enters)  If or concept formation in activities in Ecce (enters)  If or Activities for Malks concept here school limites for Lience core - ept, colore, lize here limites for science light, three length or development here.		August		०द्व	Montessoul, Kindergyster, Balwadi, Aganwadi Center
III 02 Social, Larguage development role of textures and povents  IV 02 Learning Process-Assingent  I 02 Planning & Management of a nursery school  III 02 Budget of nursery school  IV 02 Couriculum of nursery school  IV 02 Concept formation in activities in Ecce  Pre school  IV 02 Activities for Lience concept of Assingment  IV 02 Activities for Lience concept, colong, lize  November II 02 Activities for malks and leience—weight, time, length  III 02 Activities for agencies to Ecce in India	-			0೩	Play, reading methods
III 02 Social, Larguage development role of textures and povents  IV 02 Learning Process-Assingent  I 02 Planning & Management of a nursery school  III 02 Budget of nursery school  IV 02 Couriculum of nursery school  IV 02 Concept formation in activities in Ecce  Pre school  IV 02 Activities for Lience concept of Assingment  IV 02 Activities for Lience concept, colong, lize  November II 02 Activities for malks and leience—weight, time, length  III 02 Activities for agencies to Ecce in India	٤.	•	I	02	Development all areas of Breparing teac
III 02 Social, Larguage development role of textures and povents  IV 02 Learning Process-Assingent  I 02 Planning & Management of a nursery school  III 02 Budget of nursery school  IV 02 Couriculum of nursery school  IV 02 Concept formation in activities in Ecce  Pre school  IV 02 Activities for Lience concept of Assingment  IV 02 Activities for Lience concept, colong, lize  November II 02 Activities for malks and leience—weight, time, length  III 02 Activities for agencies to Ecce in India		August	I	02	Physical, cognative, Emplional - My Materia MI
IV 02 Rearring Process-Assingued  I 02 Planning & Management of a nursely school  Indoor & Gutdoor play equip  -merils, Building layout  IV 02 Curriculum of nursely school  IV 02 Curriculum of nursely school  IV 02 Objective of curriculum  of nursely school  in 02 Concept formation in activities in ECCE  Pre school  II 02 Activities for activities in ECCE  Centers  IV 02 Activities for malhs concept  Activities for science concept, colour, lize  Activities for malhs and bience—weight, time, length  III 02 Contribution of agencies  to ECCE in India		V	III	02	
September II 02 Indoor 2 outdoor play equip-nearly, Building layoud  IV 02 Curriculum of nursery school  IV 02 Curriculum of nursery school  II 02 Objective of curriculum Planning and executing of nursery school  II 02 Concept formation in activities in ECCE  Pre school  IV 02 Activities for Cognalive development  IV 02 Activities for Malhs Concept  Activities for Licence concept, Colone, Lize  Presentation  Presentation  Presentation  Presentation  O2 Activities for malhs and science—weight, time, Length  III 02 Contribution of agencies to ECCE in India			IA	02	Learning Process- Assingenent
III 02 Concept formation in activities in ECCE  Pre school  TO 02 Activities for Leience concept, colored to executing of a concept formation in activities in ECCE  Pre school  TO 02 Activities for Leience concept, colored, lize  TO 02 Activities for males and seven to executing of a concept of activities in ECCE  Pre school  TO 02 Activities for Leience concept, colored, lize  TO 02 Activities for males and seven to execution of a concept of	3		工	0,2	Planning & Management of
I 02 Objective of Curriculum Planning and of nurscry school executing of executing of executing of activities in ECCE (centers)  III 02 Concept formalion in activities in ECCE (centers)  III 02 Activities for Cognative development  IV 02 Activities for males concept development  IV 02 Activities for science concept (colour, lize)  III 02 Activities for males and leience—weight, time, length to ECCE in India		September	I	02	Indoon & but doon play equip -ments, Ruilding Layout
I 02 Objective of Curriculum Planning and of nursery school executing of executing of executing of activities in ECCE (enters)  III 02 Concept formation in activities in ECCE (enters)  IV 02 Activities for Cognative development  IV 02 Activities for Maths Concept development  IV 02 Activities for Lience concept (colour, lize)  III 02 Activities for maths and livence—weight, time, length to ECCE in India			III	02	Budget of nursery school
October II 02 Concept formation in activities in ECCE  Pre school Centers  III 02 Activities for Cognitive development  IV 02 Activities for maths concept  Activities for Lience concept, Colour, Size  November II 02 Activities for maths and science—weight, time, Length  Lience—weight, time, Length  TO 2 Contribution of agencies  to ECCE in India			TV	02	Curriculum of nursery school
October II 02 Concept formation in activities in ECCE  Pre school Centers  III 02 Activities for Cognative development  IV 02 Activities for Maths Concept  Activities for Leience concept, Colour, Size  November II 02 Activities for maths and science—weight, time, Length  Lience—weight, time, Length  TO 2 Contribution of agencies  to ECCE in India	4		I		objective of curriculum Planning and of nurscry school executing of
TO 02 Activities for Cognative development  TO 02 Activities for maths concept  To 02 Activities for Lience concept, colour, size  November II 02 Activities for maths and Lience—weight, time, length  Lience—weight, time, length  To 02 Contribution of agencies  to ECCE in India		sclober	I	02	concept formation in activities in ECCE
IV 02 Activities for maths concept  I 02 Activities for Leience concept, colour, lize  November II 02 Activities for maths and leience - weight, time, length  TII 02 Contribution of agencies to ECCE in India			Ш	0,2	
November II 02 Activities for maths and seventation  TII 02 Contribution of agencies to ECCE in India	_		IV	02	Activities for malhs concept
Lience-weight, time, length  Contribution of agencies  to ECCE in India	5		I.	02	-ept, colour, lize
WECCE IN ISLAND		November	T	02	Activities for maths and seight
			III	02	Contribution of agencies
			TV	02	

Mors. Should Singh- Joigh Teachers Name & Signature

### Session

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g Plan for the Academic year. 2023 - 24 ..... Under graduate/ Post graduate

1	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	02	NCERT, ICDS	Preprolion of
	December	II'	02	UNICEF	Prepration of Question bank
		Ш	٥٦	NCTE	
		I	02	Mobile creche	
2	,	I	02	Importance of conceptormation	Montessori
	January	II	02	Pore-School	School Visit
	Q	III	02	Internship work	
		IV	02	Internship work	
3		I	02	Concept of learning	
	Colonia	TT'	02	Nature of learning	
	February	III	02	There bosed learning	
		IV	02	Importance of theme box	
4		I	02	Revisor and auestion bank solving	
	March	II	02	Revison	
		111		Main practical	
		IV	-	Examination	
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Alway

### Session

Class: - 8 Sc. Home Science I year

Paper: - Family Guidances Gunselling

# Teaching Plan for the Academic year ... 2024 - 2025 ... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		Maq	02	निर्देशन - अवधारणा, प्रकृति	
	July 2023	Mag	02	निर्देशन - शेन स्वं आवश्यकत।	
	O	IV th	02	परामर्ि अवधारणा , प्रकृति	
		IV th	02	परामर्श- सेन स्व आवश्यकता	
2		12F	02	निर्देशन एवं परामर्श मे अल्तर	
	August	2nd	02	पराभर्श के अकार	
	J. A.	329	02	पशमर्श के उकार	
		4th	62	अन्धे परामर्शक के गुण	
3		1 st	02	परामर्श के चेरण हवं अक्रिया	
	September	2nd	02 U-2	निर्वायं लेना , समस्या सुलझाना	
		329	02	श्चनात्मक सोच आलोचनात्मक सोच	
		4th	02	शामुहिक सम्पर्क	
4		1st	02	पारम्परिक कीशल	
	October	2nd	92	आत्म् जागर्न्कता	
The second of th	040550	33d	02	समानुभूति	
		ath	02	भावनाल्पक तनाव से ।निपटना	
5		14	02	वेवाह रवं परिवार की अवधारणार सं विशेषतार	
	November	2nd	02	विवाह एवं परिनार की विशेषताए	
	*	3rd	02	परिवार परामर्श विधिन	
	3	4th	02	गरिवार पराभरि चक्रिया	•
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Ward Restricted Branch

### numan pevelopment pepartment –

### **Session**

Class: - B.Sc Home Science III Year

Paper: Jamily Guidance & Counselling

Teaching Plan for the Academic year .. 2023 - 2024 ......... Under graduate/ Post graduate

s. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		150	02	विवाह पूर्व परामश्र की आनश्यकता।	
	December	2nd	02	विवाह पूर्व प्ररामर्श का महत्त्व	
		329	02	विवाहेत्र परामर्श की आवश्यकता	
		4th	02	विवाहेनर परामरी का महत्व	
2		15t	02	1-1- पति-पत्नी सम्बन्ध	
	-	2nd	02	12-माता-पिता बालक सम्बन्ध	
	January	384	02	13 - हिंसा विवाह - विच्छेद	
		464	02	1.6-माहक इत्यों का सेवन	
3		15t	02	1.7- परिवार के साथ मानसिक रूप सेवी मार्ट्या केत	
	E Laward	2nd	02	b-8 वर्तमान रिपति में परिनार एवं समाज के तिथरिक कार्क एवं उनका अभाव	
	February	379	02	U-4 - परिनार कल्याण कार्यक्रम 11 अवस्थारणा , एवं अपन स्थकता, सन-पानक	A
		4th	02	योजना, परियोजनार और, २०ानीति या, भानेन	<u> </u>
4	,	1st	02	वाल कन्या	
		2 nd	02	महिला कर्याण	
	March	38d	02	रीया कष्ट्रमाठा किट्ट कप्ट्रमाठा	
		4 <sup>th</sup>	02	1.6 विकलाग / असाधारण ध्यात्र केल्याण	
5					
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Answ डॉमलीपा आर्च Maryo
Teachers Name & Signature

प्रायार्थे एवं विद्यार शामा. मो. ह. गृहविद्यालय, जबलपुर क्या महाविद्यालय, जबलपुर

### Session

Class: - B.Sc Home Science III Year

Paper: - Jamily Guidance & Counselling

S. No	Month & No. of Working days	Week	No. of Periods per	Topics to be covered	Co-curriculum Activity
1		15t	week	विवाह पूर्व परामश्री की आंतश्यकता।	
	December	2nd	02	विवाह पूर्व परामर्श का महत्व	-
		329	02	विवाहेत्र पशमर्श की उपवश्यकता	
		4th	02	विवाहेत्तर परामरी का महत्व	
2		15t	02	U-3 1-1- पति-पत्नी सम्बन्ध	
	January	2nd	02	12- माता-पिता बालक सम्बन्ध	
	Schrading	329	02	13 - हिंसा विवाह - विच्छेद	
		4th	02	1.6 - माद्क इत्यों का सेवन	
3		15t	02	1-7- परिवार के साथ मानसिक रूप सेवीमार्ट्यांवेत	
	February	2 <sup>nd</sup>	02	1.8 वर्तमान स्पित में परितार एवं समान के विधरिक कारक एवं उनका अभाव	
	3 0	329	02	U-4- परिनार कल्याण कार्यक्रम 1.1 अनेधारणा, स्व उपनश्यक्ता, संबे आनुधान	
		4 <sup>th</sup>	02	योजना, परियोजनार और, २०ानीति याँ। भानेनीय	ũ
4		15t	02	वाल कल्याण	
	00 d	2 nd	02	1:3 <sub>)</sub> माहेला कल्याण	
	March	3°d	02	युवा कल्पाण मुद्धि कल्याण	
		4 <sup>th</sup>	02	1.6 विकलांग / असाधारण ध्यान कल्याण	
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ट्रामलीपा आर्थ Maryo
Teachers Name & Signature

शास. मो. ह. गृहविद्यालय, जयलपुर

Class: - B.Sc Homescience III Year

Paper: - Family Guidance & Counselling

Teaching Plan for the Academic year ..2023 - 2024 .......... Under graduate/ Post graduate

Tea	ching Plan for	and the same of the same of the same of the		L. L	Co-curriculum Activity
s. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	
	days	15t	02	तिवाह पूर्व परामश् की आवश्यकता	
	December	2nd	02	विवाह पूर्व परामर्श का महत्व	
	-	329	02	विवाहेत्र परामर्श की आवश्यकता	
		4th	02	विवाहेनर परामर्ग का गहत्व	
2		15t	02	U-3 1.1- पति-पत्नी सम्बन्ध	
		2nd	02	12- माता-पिता बालक राम्बन्ध	
	January	329	02	13-हिंसा विवाह-विच्छेद	
		4th	02	1.6-मादक इत्यों का सेवन	
3		15t	02	1.7- परिवार के साथ मानसिक स्प से वीमार ट्यांक्त	
	[ [ ]	2nd	02	1.8 वर्तमान स्पिति में परितार एवं समाज के तिधारक कारक एवं जनका प्रभाव	
	February	329	02	U-4 : परिनार कल्याण कार्यक्रम 1.1 अनुसारणा स्व आन्यक्ता, शर्ने आनुसम	•
		4th	02	बोजना, परिकाननाएँ और, श्लानीति थाँ। जानेनिव	Ĭų
4		1st	02	<u>विलक्तिक्या</u>	
		2 nd	02	भाइला क्रन्याण	
	March	30d	02	रीया कष्णाण किट्ट कल्गाण	
		4 <sup>th</sup>	02	1.6 विकलंग्ग / असाधारण ध्यात्र कल्याण	
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डॉ मनीपा आप हा मनीषा आर्च क्रिकेट्ट Teachers Name & Signature

नास मो. ह. गृहविज्ञान एवं तिज्ञान महाविद्यालय जवलयः

Session - 2022 - 2023

Class - B.sc III Year

Paper III J.O.C.

auidance & counselling

Teaching Plan for the Academic Year Undergraduate/ post graduate

		Una	E 88 8	saduaze j	Post gradua	te	
S. No	Month an No. of wo days			NO. of Pexiods Pex week	Topics to	be	co-curricular Activity
7	July -	27 2 N	leeK leeK leeK	3 3 3	Meaning and di advice, coanselling Need Goals of Objectives of g	uidance & Cou	
2	August -	24 2 W 3 h	eek eek leek	3 3 3	Principles of gu principles of c Characteristics counselling Types of aui	ounselling of guidance dance	
3	Septembe	8-24 1 W	leek leek leek	3	Types of cou Techniques/method Techniques/method Qualities of c	nods of guidan	
4	october -	20 2 h	eeK leeK leeK	3 3 3 3	Role of a cou Role of parents; Childhood period Role of leachers	insellox n 44idance pa 6-12 years	g.Slogon making for old age
5	November-	24 2 1 3 1	Neek Neek Neek	3 3 3	Role of teachers in and academic act counselling durin	n schooladjust jievement g adolescours	ment
6	December	- 25   1 h 2 h 3 h	eeK leeK	3 1	Vocational couns Counselling during Pasenthood, Pre and post marif Behaviouxal Probl	elling -old age, cal counselling emms during	<del>,</del>
7	January -	27 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	eeK eeK	3 3 3 3	Physical, social, em interrelated dev cuidance programm child adjustment	otional, el opment an e for parents	surakshit Ralin
8	February	2 4 2 We 3 We 9 W.	ek ek	3 (3 3 (3 3. (1	Academic achieve counselling gifled co recognise child capci nental xetasdatics lassification of r	ties, potenti	41

Teacher Name & Signature

DR ABHA TIWARI

Session - 2021 - 2022

Class - Bisc III Year

Paper III J.O.C.

auidance & counselling

Teaching Plan for the Academic year

Undergraduate/ post avaduate

	,	nuesg	o a o u a L C	/ Post graduate	
S. No:	Month and No. of working days	Meek	No. of periods per weet	covered	co-curricular Activity
		I Week	3	Meaning and difference be advice, counselling and guidance	tween
1	July - 27	2 Week	3	Need Goals of counselling	E
	_	3 Week	3	Objectives of guidance & con	mealing
		4 Week	3	Principles of guidance	ane mil
		1 Meek	3	principles of counselling	
2	August - 24	2 Week	3	Characteristics of guidance	
		3 Week	3	Types of auidance	
		4 Week	3	Types of counselling	
		T MEEK	3	Techniques/methods of guida	κe
3	Septembes-24	2 Week	3	Techniques/methods of Counselli	
		3 Week	3	Qualities of counsellox	K 1
		4 Week	3	Role of a counsellox	
		+ Week	3	Role of parents in avidance pr	essloam makina
4	october - 20	2 Week	3	Childhood period 6-12 years	for old are
		3 Week	3	Role of leachers in guidance	70.01.32
		4 Week	3	Role of Leachers in counselling	-
		I Week	3	Role of teacher in schooladies	
5	November - 24	2 Week	3	and academic achievement	
	2	3 Week.	3	counselling during adolescence	
		4 WEEK	3	Vocational counselling	
		1 WeeK	3	counselling during old ago	
6	December - 25	2 Week	3	counselling during oblage parenthood, marital counselling	L
of of other		3 WEEK	3	Behavioural Problems during	
		1 WEEK	3	Physical, social, emotional,	
7	Tanuaru 27	I Week	3	interrelated development are	49
1	January - 27	2 Week	3	auidance programme for parents	Curabel' 1 2 14
		3 Week	3	child adjustment  Academic achievement  Counselling of the deliteration	Sashakt Bhayat
		T MEEK		counselling diffed children & Passe	debate competiti
8	February 24	2 Week		Recognise child capcities potenti	א ו־ל
	4	3 Week	ן. כ	Mental retardation	
		9 WEEK		classification of mentally setus	ded thisam

Teacher Name & Signature | DR ABHA TILIARI

Hour. Foot. M. H. College o

Session - 2020 - 2021

Class- Bisc III Year

Paper III J.O.C.

avidance & counselling

Teaching Plan for the Academic year Undergraduate/ post graduate

ko-curricular Month and No. of Topics to be 5. Week Activity periods No. of working NO. covered days per week 1 Week 3 Meaning and difference between advice, counselling and guidance July -27 1 2 Heek 3 Meed Goals of counselling Objectives of guidance & counselling 3 Week 3 4 Week 3 Principles of guidance 1 Week 3 principles of counselling Characteristics of guidance Types of Guidance 2 August 24 2 Week 3 3 Week 3 3 4 Week Types of counselling Techniques/methods of suidance 3 I WEEK September-24 2 Week 3 Techniques/methods of Counselling 3 HEEK 3 Qualities of counsellor Role of a counsellox 4 Week 3 3 Role of parents in avidance prog. Slogon making + Week 4 october - 20 Childhood period 6-12 years for old age 2 Week 3 3 Role of Leachers in guidance 3 Week 3 Role of Leachers in counselling 4 Week 3 I Week Role of teacher in school adjustment November - 24 2 Week 3 and academic achievement counselling during adolescence 3 Week 3 4 Week 3 vocational counselling 3 counselling during oblage 1 Week December - 25 6 pre and post maxital counselling 3 2 Heek Behavioural Problems during Ec 3 3 WEEK 3 Physical, social, emotional, 1 Week interrelated development area 3 I Week January - 27 7 3 anidarice programme for parents surakshit Balika child adjustment Sashakt Bharat 2 Week 3 3 Week Academic achievement debate competition 3 4 INEEK counselling gifted children & pavents I Week 3 8 February 24 Recognise child capcities, potential 2 Week 3 3 3 WEEK Mental retardation classification of mentally setunded 9 WYEK

Marlin

Teacher Name & Signature

DR ABHA TIMARI

Session - 2019 - 2020

Class- Bisc III Year

Paper III J.O.C.

Teaching Plan for the Academic Year
Undergraduate/post graduate auidance & counselling

		191	0400466	1 POS( 9 1444 4 2 2
S. No.	Month and No. of working days	lareek	No. of periods per week	covered
1	July - 27	1 Week 2 Week	3	Meaning and difference between advice, counselling and guidance Need Goals of counselling
	,	3 Week	3	Objectives of guidance & counselling
		4 Week	3	Principles of guidance
		1 Week	3	principles of counselling
2	August - 24	2 Week	3	Characteristics of quidance
		3 Week	3	types of auidance
		4 Week	3	Types of counselling
		I Week	3	Techniques/methods of suidance
3	September-24	2 Week	3	Techniques/methods of Counselling
		3 Week	3	Qualities of counsellor
-		4 Week	3	Role of a counsellox
		+ Week	3	Role of parents in auidance pro-Slogan making
4	october - 20	2 Week	3	Childhood period 6-12 years for old age
		3 Week	3	Role of leachers in guidance
		4 Week	3	Role of Leachers in counselling
5	November - 24	I Week	3	Role of teacher in school adjustment
ر	November - 21	2 Week.	3	and academic achievement
		3 Week	3	counselling during adolescence
		4 Week	5	Vocational counselling
	December - 25	1 Week	3 (	counselling during old age
6	December 23	2 WeeK	3 P	counselling during oblage parenthood, pare
		3 Week	3 8	Behavioural Problems during Ec
		1 Week	3 P	hysical, social, emotional
7	January - 27	1 Week	3	interrelated development area
'	7	2 Week		uidance programme for parents surakshit Balin
		4 Week		reademic achievement debate competition
8	Calazara	1 Week	3 (4)	
0	February 24	2 Heek		ecognise child capcities potential
		3 Week	. 5   10	rental retardation lassification of mentally retarded him
٨		- Annual		Tool me or unity seturned thrown
_1	alline			Teacher Name & signature
	CTULE II THE TOTAL			1 1111 11 (111) (1711 (1111)

(DR ABHA TIWARL)

Jout. M. H. College of Home Sc. ?

Session 2024 - 2025

Class: - BSc. IIIYear

Paper: Personality Development

### Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	November	I	03	Syllabus discussion, Meaning of Attitude	Dant on weve
	ryovember	IL	03	Role of attitude in personality development	d dans
		III	03	Positive and Negative attitude	to develop positive attitude
		IV.	03	Advantaged disadvantages of altitude	
2	December	I	03	ways to develop positive	Part the
		I	03	Difference between personalities having positive &	
		III	03	Nagative attitude	Problem Solving
		IV	03	skills of Personality development	
3	January	T	03	Concept and needs of Personality development skills	/
	U	IL	٥3	Types of personality Development	Social Media Managment
			03	Report development skills	Managment
		IV	03.	skills for successful interview	
4	Fabruary	T	03.	Thinking and Problem Solving skill	Write up the
		Л	03	skill of social Media-	ways of
		111	03	Management Personality prosessment	lessonality grooming
		11	03	Surpose of personality assessment	
5	March .	T	03	Observation method	
	The second secon	I	03	Interview method	Personality Evaluation
		11/	03	Types of psychological test of personality	through projective
		IV	03	Record evolvation	test

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प्रिक्षास. मो. ह. गृहविज्ञान एवं विज्ञान भहिला महाविद्यालय, जवलपुर Teachers Name & Signature
Dr. Manisha Arya

Session 2023 - 2024

Class: - BSc. IIIYear

Paper: Personally Development

# Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	November	T	03	Syllabus discussion, Meaning of Attitude	Report on ways
	, dor end e	I	03	Role of attitude in personality development	to develop positive
		III	03	Positive and Negative attitude	attitude
		IV	03	Advantags & disadvantages of attitude	
2	December	Γ	03	Ways to develop positive attitude	Report the
		IL	03	Difference between personalities having positive &	Strategies of
		11	03	Nagative attitude	Problem Solving
		IV	03	skills of Pensonality development	
3	January	T	03	Concept and needs of Personality development 5kills	/
	Į.	IL	٥3	Types of personality Development	Social Media
		Ш	03	Report development skills	Managment
		ΙV	03.	skills for successful interview	
4	Fabruary	Τ	03.	Thinking and Problem Solving skill	Write up the
		Л	03	skill of social media-	ways of
		114	03	Management Personality Assessment	Personality
		IV	03	Purpose of personality assessment	grooming
5	March .	T	03	Observation method	
		I	03	Interview method	Personality Evaluation
		TI/	03	Types of psychological test of personality	through projective
		IV	0.3	Record evaluation	test

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शारा. मो. ह. गृहविज्ञान एवं विज्ञान भारा. मो. ह. गृहविज्ञान एवं विज्ञान महिला महाविद्यालय, जयलपुर Maya Teachers Name & Signature Dr. Manisha Arya

## Session

2024-2025

Class: - B.Sc. First Year

Paper: DEVELOPMENT

Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
1	August	I	03	ट्यितित्वं की अवधारण ,सफलता	
		II	03	प्रभावी अप्देतें , असफलता	श्वाट विश्लेषण
		T	03	विश्वास , स्वॉट विश्लेषण	
	12	V	٥3	लक्य निर्धारण (भ्मार्ट लक्ष्य)	
2	September	I	03	मस्य निधरिंग	स्मार्ट लक्ष्य
		I	03	संस्थादान समय	Contract of the contract of th
	12	山	63	समय प्रवंधन तकनीक	
		IV	03	तताव उवंध्त .	
3	October	r	03	ग्रुप डिस्करान	
		I	03	साक्षाटकार	समय प्रबंधन
	12	Ш	03	सं-वार कीशल-पढत लेखन अवन	
		14	03.	हार्ड स्किल् साएट स्किल	
4	November	T	03	मंब डर पर काब् पाना बॉडी लेश्वेज	
		I	03	पेशेवर प्रस्ताते , अट्य सार्द्ध अपयोग	रिज्यूमें लेखन और
	12	ĪĪ	o 3	पेशेवर वस्तुति-दृश्य साध्यत उपयोग	मारू सामाळार सन
		1V	03	सामाजिक शिष्टाचा २	
5	December	I	03	आई सी टी का उपयोग	संचार कोशल
	12	Д	03	सोशल भीडिया का अभावी अपयोग-ई-मेल स्ट्रान्टरनार	ह-मेल लेखन
		III	03	होरिकेट इलेक्ट्रांतेक भेजेट	7
		JV	03	मोबाइल एप्लीकेशन	

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प्रविद्यान एवं विद्यान

Mayor Teachers Name & Signature Do Monisha Arg

#### Session 2023-2024

Class: - B. Sc. First Year

Paper:- DEVELOPMENT

# Teaching Plan for the Academic ye

### ..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
1	August	I	03	ट्यितन्त की अवधारण ,सफलाता	
		П	03	प्रभावी अप्दतें , असफलता	श्वाट विश्लेषण
	12	TI	<b>σ</b> 3	्विश्वास , स्नॉट विश्लेषण	
	12	V	03	लस्य निर्धार्ग (२मार्ट लक्ष्य)	
2	September	T	0.3	मस्य निधरिंग	स्मार्ट लक्ष्य
		I	03	संस्थलन समय	स्माट तस्य
	12	711	<b>p</b> 3	समय प्रबंधन तकनीक	
		IV	03	तताव ७वंधन	
3	October	T	03	गुप डिस्कशन	
		I	03	साक्षाटकार	समय पुबंधन
	12	III	03	संचार कीशल-पढतं लेखन अवन	
		11	٥3 .	हार्ड रिकल सापट रिकल	
4	November	T	03.	मंत्र डर पर काब् पाना, बॉडी लेबनेज	
		II	03	वेशेवर प्रस्तृति , अव्य सार्क अप्योग	
	12	ŢÙ	03	पेशेवर वस्ताते-दृश्य साधात उपयोग	और मारू सामाळार सन
		V	03	सामाजिक सिष्टाचा २	
5	December	エ	03	आई सी टी का उपयोग	
	12	л	03	सोइल भीडिया का उभानी उपयोग-ई-मेल शिक्टानार	संचार कीशल ई-मेल लेखन
		II	03	निटिकेट इलेक्ट्रांगिक बेजेट	५-गहा लरकन
		JV	03	मोबाइल एक्लीकेशन	

Alvor

प्रिक्याम मा. ह. गृहविकान एव विकास

(Mayor Teachers Name & Signature Do. Manisha Arya

Session 2022 - 2023

Class: - B.Sc. First Year

PERSONALITY Paper: DEVELOPMENT

### Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

ı e	iching Plan fo	the A	caaciiio y		
i. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
	August	I	03	ट्यवितन्त्व की अवधार्ग्ण, सफलाता	~ 0 <del>}</del>
	Ü	П	03	प्रभावी आदतें, असफलता .	श्वाट विश्लेषण
		TI	03	विश्वास , श्वांट विश्लेषण	
	12	V	03	लक्ष्य निर्धारण (क्मार्ट लक्ष्य)	
2	September	T	03	मस्य निधरिंग	रमार्ट लक्ष्य
	oeptebc	I	03	संसाधन समय	
	10	111	<b>63</b>	समय प्रवंधन तकनीक	
	12	IV	03	तताव प्रवंधन	i .
3	October	I	03	गुप डिस्केशन	समय प्रबंधन
		IL	03	साक्षाटकार	समप उपप
	12	II	03	संचार कीशल-पहतं लेखन अवन	
		IV	03	हार्ड रिकल, सापन्ट रिकल	
4	November	I	03	मंत डर पर काब् पाना, बॉडी लेवनेज	
	1	I	03	वेशेवर प्रस्तृति , अट्य सारक्ष अपयोग	ारिन्यूमे लेखन और
	12	Ţ	03	पेशेवर उर्दाते -दृश्य साधान उपयोगा	माक सामाकार सन
		· IV	03	सामाजिक शिष्टाचा र	
5	December	I.	03	आई सी टीका उपयोग	संचार कीशल
10	December.	工	03	साराल भीडिया का उभानी अपयोग-ई-मे	न ई-मेल लेखन
	12	II	03	नेटिकेट इलेक्ट्रानिक भेजेट	
		JV	03	मोबार्ल एलीकेशन	

Ann

Teachers Name & Signature

10 र प्रियालय स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व स्थापनात्त्व

#### Session

2021 - 2022

Class: - B.Sc. First Year

Paper: DEVELOPMENT

## Teaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
1	August	I	०३	ट्यिनितन्त की अवधारण ,सफलाता	- 0
		П	03	प्रभावी अव्हों, असफलता	स्वॉट विश्लेषण
	12	TI	03	विश्वास , स्वांट विश्लेषण	
		VI	03	लस्य बिधिर्ग (स्मार्ट लक्ष्य)	
2	September	I	03	सस्य तिधारण	स्मार्ट लस्य
		I	03	संसाधन समय	
	12	山	<b>0</b> 3	समय प्रबंधन तकनीक	
		IV	03	तताव प्रवंधन .	
3	October	I	03	गुप डिस्करान	
		IL	03	साक्षाटकार	समय प्रबंधन
	12	TI	03	संनार कीशल - पहले लेखन अवन	
		14	٥3 .	हार्ड रिकल, सापन्ट रिकल	
4	November	T	03	मंत्र डर पर काब् पाता, बॉडी लेवनेज	
		I	03	वेशेवर पर्तृति , अट्य सार्व्य अप्योग	रिन्यूमे लेखन और
	12	Ţſ	03	पेशेवर वस्ताते -दृश्य साधान उपयोग	मारू सांसाकार सन
		IV	03	सामाजिक शिष्टान्या २	
5	December	I.	03	आई सी टी का अपयोग	संचार कोशल
	12	Д	03	सोशल भीडिया का यभानी व्ययोजा-ई-मेल सिन्दान्नार नेटिकेट इलेक्ट्रॉनिक ब्रेनिट	
		II	03	नोटिकेट इलेक्ट्रानिक भेजेट	
		IV	03	मोवार्ल एप्लीकेशन	•

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Teachers Name & Signature
Do Clamisha Arya

क्रिया में. ह. गृहविज्ञान एव विज्ञान महिला महाविद्यालय जवलवुर

## Session 2024-25

Class: - B.S.C. III (Vocalional Course) Paper: Personality
Teaching Plan for the Academic ye 2024 - 25 ...... Under graduate/ Post graduate

S. No	Month & No. of Working. days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
<u> </u>	November	I I I I	03 03 03	Syllabus chscussion Meaning of Attitude Role of attitude in pers - nality development Positive and Negative attitude Advantages & disadvantages of	Report on ways to develop Positive attitude
2	December	I	03 03 03	Mays to develop positive attitude  Difference between personalities having positive & negative attitude.	Report the Strategies of problem solving
3	January	N I I I I I I I I I I I I I I I I I I I	03 03 03 03 03	Skills Of Personality development Skills  Concept and needs of Personality dev. skills  Types of Personality development skills  Rapport development skills	Locial Media Management
	February	I	03	solving spans	Write up the ways of Personality grooming
5	March	I III IV	03	Observation method,	Personality Evaluation Horough projective test

Myll. Shull Singh & Teachers Name & Signature - यन श्रिजान एवं शिकाल

## Session 2023-24

class: B. S. (.III. (Vocational Course) paper: (Pieces briality Developm

ching Plan for the Academic year -2023-24 ..... Under graduate/ Post graduate

No	Month & No. of Working, days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	03	Syllabus discussion	Report on
	Nous	1	03	Meaning of Attitude	le alla da da da
	November			Role of attitude in personality development	ways to develop Positive attitude
			03	Positive and Nepative attitude	
2		IV	03	Advantages & disadvantages of	
2		I	०३	Mays to develop positive allftude	Report the Strategies of
	December	工	03	Difference between perso	Problem Solving
		11	03	Difference between personalities having positive & negative attitude.	O
3	:	TV	03	Skills 0 + Personality devel	
3		I	63	Concept and needs of Personality dev. Skills	Social Media
	January	I	03	Types of Pensonality	Management
	0	III	03	Rapport development still	
		IV	02	Skills for successful interview	
4		I	03	7 1 1	Write up the
	February	T	03	Skill of Social media management	verys of Personality
	O	$\overline{M}$	03	Personality Assessment	grooming
		TV	02	Purpose of personality assess	
5	:	I.	03	Observation mothed,	Personality
	March	I	03	Types of psychological test of persondlity	Evaluation through projective
		TY TY	03	Record evelvation	

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Mrs. Shruli Singh - Light Teachers Name & Signature

Session - 2024-25

Class: - B. Sc. First Year (Vocational Course)
Teaching Plan for the Academic ye

Paper: DEVELOPMENT

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
1	August	I	03	ट्यवितन्त की अवधारण , सफलाता	
		П	03	प्रभावी अद्देतें , असफलता	श्वाट विश्लेषण
	12	T	03	विश्वास , स्वांट विश्लेषण	
		TV.	03	लक्य निधारण (२मार्ट लक्ष्य)	
2	September	T	03	सस्य निधारण	स्मार्ट लक्ष्य
		π	<b>o</b> 3	संस्थान समय	Ç.11.0 11.04
	12	TU	<b>-3</b>	समय प्रबंधन तकनीक	
		IV	٥3	तताव ७०५ त	
3	October	T	٥3	गुप ।डेश्कशन	
		II	03	साक्षाटकार	समय प्रबंधन
	12	IU	03	संचार कीशल-पहतं लेखन अवन	
		11	٥3 .	हार्ड स्किल साफ्ट स्किल	
4	November	I	03.	मंत्र डर पर काब् पाता, बॉडी लेवनेज	
		II	03	वेशीवर प्रस्तृति , अट्य साध्य अपयोग	रिन्थूमे लेखन
	12	ŢŢ	03	पेशेवर अस्ताते -दृश्य साधात अपयोग	और मारू सामाट्यार सन
		11	03	सामाजिक सिष्टान्वार्	
5	December	エ	03	ट्याई सी टी का उपयोग	منت کے
	12	л	03	सोशल भीडिया का यभानी अपयोजा-ई-मेल	संचार कीशल ई-भेल लेखन
		111	03	होटिकेट इलेक्ट्रानिक भेजेट	3 - 11th cicasi
		VL	03	मोबाइल एप्लीकेशन	

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Mrs. Shuili Singh \_ Juli Teachers Name & Signature

## Session 2023-24

Class: - B Sc. First Year (Vocational Cowney Paper: DEVELOPMENT

reaching Plan for the Academic ye

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Practical
1	August	$\mathcal{I}$	03	ट्यवितन्त्व की अवधारण ,सफलाता	
		II	03	प्रभावी ऋदतें , असफलता .	श्वाट विश्लेषण
	10	TI	03	विश्वास , श्वांट विश्लेषण	
	12	V	03	लक्ष्य निर्धार्ग (२मार्ट लक्ष्य)	
2	September	T	03	सस्य निदारिणं	स्मार्ट लक्ष्य
		I	03	संसाधन समय	
	12	TI	• 3	समय प्रवंधन तकनीक	
		IV	03	તનાવ ઉવધન	The second of the second discount of the second of the sec
3	October	T	٥3	गुप डिश्कशन	समय पुबंधन
		II.	03	साक्षाटकार	समय उवचन
	12	II	03	संनार कीशल-पहतं लेखन अतन	
		1v	٥3 .	हार्ड रिकल, शापन रिकल	
4	November	T	03	मंत्र डर पर काब् पाना, वॉडी लेवनेज	
		II	03	वशेवर प्रस्तृति , अव्य साद्ध्व अपयोग	रिज्यूमे लेखन और
	12	TIT .	03	पेशेवर ७२तुर्ति-दृश्य साधान उपयोग	माक संस्थाकार सर्ग
		11/	03	सामाजिन सिल्हाचार	
5	December	I	03	आई सी टी का उपयोग	संचार कीशल
	12	1	03	सोशल भी डिया का यभावी यपयोग-ई-मेल शिक्टान्वार	ई-मेल लेखन
		III	03	होटिकेट इलेक्ट्रॉविक भेजेट	4
		JV	03	मोबार्ल एप्लीकेशन	

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Mus. Shouti Singh-Sight Teachers Name & Signature

#### Session 2019 - 2020

Class: - M.SC III

Paper: II Person With Special

Teaching Plan for the Academic year ..... 2019 - 2020 .... Under graduate/ Post graduate

S.	I WOUTH & No.	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		Lbleck	6	various approaches in defining disability	
	July"	2 WECK	6	understanding disability classification of impairment	
		3Weck	6	physical, Intellectual impaix.	
		4 Week	6	Emotional, Sensory impairment	
2		LWECK	6	Attitudes of people towards disability	
	August	2 Week	6	Orthopedic & Locomotive Impairment	
		3 Week	6	Meaning and concept of orthopeaic & Locomotive Impairment	ot
		4 Week	6	Identification & causes of orthopedic & Locomotive Impaisem	
3		1 Week	6	Classification	
	September	2 Week	6	Educational provisions. Visual Impairment-Meaning	
		3 Week	6	concept and Identification of visual Impairment	
	~	4 Week	6	causes and classification of visual impairment	
4		1 Heek	6	Educational provisions	
	october	2 Week	6	meaning & concept of hearing impairment	
	3	3 Week	6	Identification & classification of hearing Impairment	
	4	t Week	6	hearing Impairment, Educational provisions.	
5	Hovember_	. Week	6	Meaning & concept of Speech   Impairment	
		Week	0	Identification and types of speech Impairment	
	3	Week	6	causes & problems of Speech Impairment	
	4	Week	6 P	Problems and Educational rovisions of speech Impairmen	t

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DR ABHA TIWARI Teachers Name & Signature

PRINCI Govt. M. H. College of Home Sc. &

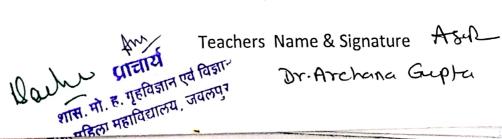
#### Session 2019 - 2 6

Class: - M. Sc III Sem

Paper: III Principles of Guidana & counselling.

Teaching Plan for the Academic year ....2019 - 20 ........ Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be essential	Co-curriculum Activity
1		I	06	Genral Introduction 4 syllabus	
	July 2019	I	06	discussions meaning a need of Guid. 4 cours.	
	27-days.	111	06	Deffin & objective of Guld. & com	-
	2 Tougs.	IV	06	Principles of Guil Coun difference	
2	2 12.15	$\mathcal{I}$	06	models of Guidance meaning	
	August 2019	#	06	fundamentals of Guid. Models	
	24 days	加	06	Types of Guidance model	
		IV	06	Contemprary model of Gulda.	
3	5 - 61 - 1	エ	06	skill of Counseller, Process of Gu	n.
	September 2019	正	06	Counsellor-Counsellee relationsh	in
		加	06	Individual - Courselling nece	de
	24 days.	区	06	Group & family Counselling	3
4		I	06	Types of Counselling	
	October 2019	II	06	Directive Counselling.	Paramarsh Kendra
		TI	06.	Han directive counsells	
	25 days	77	06	Elective Cours difference between Direc. 4 Nondir. Co	
5	November	I	06	Questionnaire types marily 1	De
	2019	I	06	Schedule Types, manits 4 dem	
	25 days.	tir	06	Intenview Types Maints & den	
		IV	06	Commulative Record, areas	01-
6	Dec. 2019			Final Exam	



#### Session

Class: - M. Sc III Som H.D.

Paper:- IV

Teaching Plan for the Academic year Taly Rata Under graduate Post graduate

s.	Month & No.	Week	No. of Periods per	Topics to be covered Co	o-curriculum Activity
No	of Working		week		
1	days	エ		General Introduction	
	July	I	96	Syllabus discussion. Mantal Health, meaning, concept	felenence study-
		皿	٥6	Thysical Mental and so cial	Elements of
		IV	06.	elements of happyness. To privation	Happyness.
2		エ	•6	Le provation symbome, anothernal	federance Study
	August	I	06	Stock, and adjustment also sheen	•
		TIL	06	Categories of States On	Stress reduction.
		11/	06	Strength of Zines Lucions 10 Sturents	a pproach.
3	September	エ	06 .	Changetenisties of Estimical.  Behavious, concept of leastoing.  Behavious disorder of childhood	
		工	<i>o</i> 6 ·	Adoloscent telanour problems	Study
		111	06	Hyper activity- child-problem	Childhoot behaviour problems
		1	06.	ADHD, emotional problems. Child deliquency ikassion.	BENGALLARY LY ABSTERNS
4	October.	I	06	Psychosocial model of Dsychopathology.	To study
		工	06	Freud concept of psychoanalya	s bewen diconions
		皿	06	Redavious model.	Unconcidus min
	,	IV	06.	Cognitive model Piaget	
5	Nov.	I	06.	Psychotherapies.	C13T
		II	06		Assal has z
	,	III	06	Behaviour therapy.	
		T	06	Cognitive behaviour	•
				therapy (CBT) pevision and discussion.	

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allers Name & Signature

Shawastara,

Mariana, Marian

Session 2020 -2021

Class: - M.Sc. III Semeter

Paper: Advanced study in Human Development - I

Teaching Plan for the Academic year-20-21

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	15th July to		06	Biological and development perspectives on youth and adulthood	
	7th August	$II_{\scriptscriptstyle \mathbb{C}}$	06	Developmental task during . adulthood:	
		III	06	Marriage and marital adjustment	;
2	August	I,	06	Erikson's sixth stage of Psycho-social DevIntimagy's isolation	1
	•	I	06	Developmental task in middle age.	
		<u> III</u>	06_	Parenthood as a developmental experience Relationship with maturing	•
				childrenduring middle age. Health& changes	
3	September	I	06	Menopause and and ropause	
		#	06	male climacteric	
		II	06	Physical changes in women and Behavioral changes	
	•	IV	06	Psychological changes in man Behavioral changes.	
4	October	I	06	Women's health problems after Heart disease	
		11	06	Bone loss, osteoporosis	•
		111	06	Breast cancer	
		1v	06	Hoomone replacement thearpy	
5	November	T.	o Ç	Stress Types of stressors	
		Ī	06	Management of stress. Crisis interventions - Marital Suicide attempts	
		Ш	06	Suicide attempts aisorder	
		JV	06	Pisasters and death	
•	pecember	-		Final Examination	

शास. मो. ह. गृहविज्ञान एवं विज्ञान महिला महाविद्यालय, जवलपुर

Teachers Name & Signature

## Session 2020 - 2021

Class: - M.SC III

Paper: IT Person With Special

Teaching Plan for the Academic year ... 2020 - 2021 ........ Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	Jul.	Lbleck	. 6	Various approaches in defining disability	
	July	2 WECK	6	understanding disability classification of impairment	
		3Weck	6	physical, Intellectual impair.	1
		4 Week	. 6	Emotional, Sensory impairment	
2		LWeck	6	Attitudes of people towards disability	
	August	2 Week	6	Orthopedic & Locomotive Impairment	
		3 Week	6	Meaning and concept of orthopedic & Locomotive Impairme	pt
		4 Week	6	Identification & causes of orthopedic & Locomotive Impaiser	
3		T Meck	6	Classification	
	September	2 Week	6	Educational provisions. Visual Impairment-Meaning	
		3 Week	6	of visual Impairment	
		4 Week	6	causes and classification of visual impairment	
4		1 Week		Educational provisions	
	october	2 Week	6	meaning & concept of hearing impairment	
		3 Week	6	Identification & classification of hearing Impairment	
		4 Week	6	causes of problems of hearing Impairment, Educat onal provisions.	1
5	Hovember	T MEEK	6	Meaning & concept of speech	-
		2 Week	6	Impairment Identification and types of speech Impairment	
		3 Week	6	Causes & problems of Speech Impairment	
		4 Week	. 6	Problems and Educational Provisions of Speech Impairm	

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PR ABHA TIWARI
Teachers Name & Signature

PRINCIPAL Jour. M. H. College of Home Sc. e

## <u>Human Development Department –</u>

#### Session 2020 - 21

Class: -M. ScIII

Paper: III Print of Guid & coun-

Teaching Plan for the Academic year .....2020 21 .......... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
	T. 1. 0 - 2	T	06	Genral Intro. & Syllabus discussion	
	July 2020	II	06	meaning of need of Guld 4 coun	
		U	06	Deffi. & Objectives of Guid. I con	
_		I	06	Principles & difference between	
2	0	$\mathcal{I}$	06	meaning of need of God. Made	
	Hugust 2020	П	06	fundamentales of Guid. mod.	5
		III	06	Types of guid. models.	
		T	06	contemporary model of Geric	4
3	Seplember	I	GG	skill of a Counseller, Process of a	
	2020	II	06	Counseller. couns lee relations	Lip
		U	06	Individual Consultry neces	
		IU	06	Group of family Cornelling	- (
4	October	I	06	Types of connelly.	
	2026	I	06	method of Cours. Directore	Cryo-
		Ш	06	Mon directive consolly	5-
		IV	06	Elect. Como, distance between Dire. a mon dir com	7
5	Nevember	I	06	Questin. types Marils of Dema	
	2020	II	06	Schedule , Types Manits 4 Dem	
		$\Box$	06	Interview. Types mails & Dem	
		IV	06	Cummilative Record areas mai	}
	Dec 2020		an I an	final Pouchical & Theor	

Walter Dr. Archana Gapla

#### Session

			III Som		V
fee	ching Plan for	the Ac	ademic year	Mental Health a. Under grad	nd Psychopathology uate/Post graduate
S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
•		エ	٥6.	General Introduction	
	July	I	୯	Syllabus discussion.	of felenence < tody-
			<b>ಿ</b>	Montal Health, meaning, conce Importance of menta Health Thysical, mental and so cial	Elements of
2		IK	o6 .	Well being. And the phyness.	
_		エ	•6	to privation symbome, anterna	
	August	I	06	deprivation Stock and adjustment dispoden	teference study
		TII.	06	Categories of stresson	Syness oreauchtin
		11/	06	Strenty of Street tactors rogine	aking approach.
3	September	工	06 .	Changeteristics of Estational. Behavious, concept of learning Behavious disorder of childhouse	4
	9 2 9	I	<i>o</i> 6	Adolosant telanour problems	<-tudy
	4,	111	06	Hyper activity- child-Problem	childhood
		1	06.	ADHD, emotional problems. Child deliquency transform	behavious problems
4	October.	I	06	Psychosocial model of	To study
		工	06	Frend concept of psychoanal	und power of, coorcious
		III	ماه	Psychodypramic model.  Behaviour model.	Unconcious mind
	4	IV	06.	Cognitive model Piaget	
5	Nov.	I	06.	Psychotherapies.	CTST
		П	06	Bychodynamic therapy	Assal has z
		11	06	Behaviour therapy.	
		TV	06	cognitive behaviour	
				therapy (CBT) perision and discussion	

Lacners Name & Signature

Machellen Shinastava,

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Session 2021 - 2022

Class: - M.Sc. III Semester

Paper: Advanced study in Human Development - I

..... Under graduate/ Post graduate

Teaching Plan for the Academic year - 21 - 22

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	15th July to	i	06	Biological and development persp- ectives on youth and adulthood	
	7th August	$I_{\mathcal{L}}$	06	Developmental task during adulthood.	
		III	06	Marriage and marital adjustment	,
2	August	I.	06	Erikson's sixth stage of Psycho-social DevIntimegy sisolation	
		I	06	Developmental task in middle age.	
		TIL.	06_	Parenthood as a developmental experience Relationship with maturing	•
				childrenduring middle age.	and the second s
3	September	I	06	Health& changes Meropause and andropause	
	•	II	06	male dimacteric	
		Ħ	06	Physical changes in women and Behavioral changes	
	•	IY	0 <b>6</b>	Psychological changes in man Behavioral changes.	
4	October	I	06	Women's health problems after Fleart disease mengause	The second secon
		11	۵6	Bone loss, osleoporosis	
		Ш	06	Breast cancer	
		IV	06	Hoomone replacement thearupy	
5	N	-qua		Shr. S	CONTRACTOR OF AN AN AN ANALOGO CONTRACTOR OF ANALOGO CONTRACTOR OF AN ANALOGO CONTRACTOR OF ANALOG
-	November	T.	o Ç	Strews Types of streasons	•
i		Ū	06	Management of stress. Orists interventions marital aisorder	
		TU	06	suicide attempts disorder	
		V	06	Pisasters and death	
	December	,		Final Examination	Manager and Manage

शास. मो. ह. गृहीवज्ञान एवं विज्ञान महाविद्यालय, जवलपुर

Teachers Name & Signature

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## Session 2021- 2022

Class: - M.Sc III

Paper: IT Person With Special

Teaching Plan for the Academic year ..... 2021 - 2022. Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
•	7	Lbleck	6	Various approaches in defining disability	
	July	2 WECK	6	understanding disability classification of impairment	
		3 Weck	6	physical, Intellectual impair.	
		4 Week	6	Emolional, Sensory impairment	
2		LWerk	6	Attitudes of people towards disability	
	August	2 Week	6	Orthopedic & Locomotive Impairment	
		3 Week	6	Meaning and concept of orthopeaic & Locomotive Impairment	ot
		4 Week	6	Identification & causes of orthopedic & Locomotive Impaisem	
3		T Mack	6	Classification	
	September	2 Week	. 6	Educational Provisions. Visual Impairment-Meaning	
		3 Week	6	concept and Identification of visual Impairment	
		4 Week	6	causes and classification of visual impairment	
4		1 Meek	6	Educational provisions	
	october	2 Week	6	meaning & concept of hearing	
N 35		3 Week	6	Identification & classification of hearing-Impairment	)
		4 Week	6	hearing Impairment, Educational provisions.	
5	Hovernber	T MEGK	6	Meaning & concept of Speech Impairment	2
		2 Week	6	Identification and types of speech Impairment	
		3 Week	6	Causes & problems of speech Impairment	
		4 Week	. 6	Problems and Educational provisions of speech Impairme	nt .

Jour. M. H. College of Home Sc. &

Sc. for Women, Jahalbur (MP)

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DR ABHA TIWARI-Teachers Name & Signature

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## Session 2021-22

Class: -M. Sc III Sem

Paper:-III Principles of Guid d cours

Teaching Plan for the Academic year ....2221 \_\_\_\_\_\_\_\_ Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06	Gen. Intro. 4 Syllabus discussion	
	July	並	06	Meaning of need of Guid Acoust	
		11	06	Deffini. 4 objectives of Guidlen	u.
		TV	06	Principles 4 different behuar Grado	
2		I	06	Meaning & need of Good model	
	Aug.	П	06	fundamental of Greid. model	
		四	06	Types of Guida, model	
		TV	06	contemporary model of Girl	
3	\$ . 0	I	06	Skill of cours, process of come	
	Sep	I	06	Counseller- Couns le volationshi	,
		D_	06	Individual Cours. need of area	
		IV	06	Croup 4 Family Coun . need 4 Area	<b>y</b>
4	oct.	T	06	Types of counselly.	Visit to Parisas
		皿	06	method of county Director County	
		卫	06	the directive como.	
		<u>Tv</u>	06	Electric Coun. difference between direc 4 Non Dire. Com	
5	Nov.	I	66	Question. Types Marils adama	wils
		I	06	Schedule Types Manis & Demails	3.
		111	06	Interview, Types marits & Demail	
		17	06	Cummulativ Record areas Mari	lz .

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Teachers Name & Signature

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Dr. Archane Gupta)

#### - Development Department

#### Session

Class: - M. Sc. III Som H.D.

Class: - M. Sc. III Scm H.D. Paper: IV

Teaching Plan for the Academic year July 2022 Montal Health and Psychopathology.

Under graduate/ Post graduate

S. No	Month & No. of Working	Week	140.01	Topics to be covered	
ī	days		Periods per week		Co-curriculum Activity
•		エ		General Introduction	
	July	IL	<b>0</b> 6	Syllabus alicius sum	
		111	°6	Montal Health, meaning, coorer Impostance of menta Health	
2		IK.	o6 .	Well being And the phyness.  Plemente of happyness. To privation	Elements of wellbeing.
2		エ	06	to provation symbolic antenna	Happyness.
	August	五	06	picph/Va7/4m	
		TIL	06	Extension of stones	federance ctudy
		11/	06	Categories of stresson. Positive and Mogetive stress. Streaty of stress factors influences. Stocks. Characteristics of Foldmund.	stacks acduction
3	Zelatemper	I	06.	Behavious, concept of leasing	
		工	<i>∞</i> 6 .	Rehavious disorder of childhood Adoloscent televieur problems	
	1	_111	06	Hyper activety - child - trobleson	-tudy
		IV	06.	ADHD, emotional problems. Child deliquency transform.	Childhoot behaviour problems
4	October.	I	06	Psychosocial model of	
		I	06	French concept of psychoanaly	To study
		Ш	06.	Redavious model.	Subconcious, and Unconcious mine
_		IV	06.	Cognitive model Piaget	
5	Nov.	I	06.	Psychotherapies.	c73T
		П	06		Bralyesis
<u> </u>		皿	06	Behaviour therapy.	0 2
		TV	06	Cognitive behaviour	
				therapy (CBT) perission and discussion.	

Teachers Name & Signature

Dr. Madhulien Shrivastara

Madeir

## Session

Class: - M.Sc. III Semster

Paper: Advanced study in Human Development - I

Teaching Plan for the Academic year 22-23

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	15 th July to		06	Biological and development perspectives on youth and adulthood	
	7th August	$II_{c}$	06	Developmental task during adulthood.	
		III	06	Marriage and marital adjustment	
2	August	I.	06	Erikson's sixth stage of Psycho-social DevIntimogylsisolation	
		I	06	Developmental task in middle age.	,
	-	πr	0.6	Parenthood as a developmental	
		TII.	06_	Relationship with maturing childrenduring middle age.	
3	September	I	06	Health& changes	
	7-	TI.	06	Meropause and andropause	
		虹	06	Physical changes in women and Behavioral charges	
		IY	۰۵ .	Psychological changes in man Behavioral changes.	· · · · · · · · · · · · · · · · · · ·
4	October	I	06	Women's health problems after Heart disease	
		11	06	Bone loss, osteoporosis	
		ш	06	Breast cancer	1
		TV	06	Hoomone replacement thearupy	
5 )	November	T	G Ç	Shr. S	
	WO WEMDET		96	Stress Types of stressors	
		Ī	06	Crists interventions - Marital Suicide allow the disorder	•
		TU	06	Suicide attempts disorder	
		JV	06	Pisasters and death	
ţ	ecember			Final Examination	

मिर्म विद्यान एवं विद्यान प्रतिकान एवं विद्यान क्षित्र महाविद्यालय, जयलपुर क्षित्र महाविद्यालय, जयलपुर

## Session 2022-2023

Class: - M.SC III

Paper: II Person With Special

ching Plan for the Academic year ...2022 - 2023 ....... Under graduate/ Post graduate

No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		Lbicck	6	various approaches in desiring disability	
	July	2 WECK	6	understanding disability classification of impairment	
	Transition of the state of the	3Weck	6	physical, Intellectual impair.	1
		4 Week	6	Emolional, sensory impairment	1
2		1 Week	6	Attitudes of people towards disability	
	August	2 Week	6	Orthopedic & Locomotive Impairment	50 O C C C C C C C C C C C C C C C C C C
		3 Week	6	meaning and concept of orthopodic & Locomotive Impairme	nt
		4 Week	6	Identification & causes of orthopedic & Locomotive Impaiser	n.
3	AND THE PROPERTY OF THE PROPER	T Mack	6	classification	
	September	2 Week	6	Educational provisions. Visual Impairment-Meaning	+
		3 Week	6	concept and Identification of Visual Impairment	
		4 Week	6	causes and classification of visual impairment	
4		1 Week	6	Educational provisions	
	october	2 Week	. 6	meaning & concept of hearing	
		3 Week	6	Identification & classification hearing Impairment	on
	-	4 Week	6	causes of problems of hearing Impairment, Educa onal provisions.	t;
5	Hovernber	T Meek	. 6	Meaning & concept of Speed	1
		2 Week	6	Identification and types o- speech Impairment	<b>f</b>
		3 Week	. 6	causes & problems of speech Impairment	
		4 Week	6	Problems and Educationa provisions of speech Impair	1 ment

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DR ABHA TIMARI-Teachers Name & Signature

Pout. M. H. College of Home Sc. & Sc. for Women, Jabaipur (MP

<u>Session</u>

2022-23

Class: -M. Sc III Sem Paper:-

III Principles of Guid

Teaching Plan for the Academic year .....2021............. Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
i	Uays	I	06	Gen. Intro. 4 Syllabus discussion	
	July	II	06	meaning f need of Guid Acoun.	
		<u>H</u>	06	Deffini & objectives of Guddlen	2
		IV	06	Principles 4 different phuas Guid	
2		I	06	Meaning & a ced of Good model	
	Aug.	п	06	fundamental of Greid. model	
		四	06	Types of Greda, model	
		1V	06	contempoury model of Gitt	
3	S 0	I	06	Skill of cours, process of cours	
	Sep	I	06	Corunseller- Counste volationshi	h
		D_	06	Individual Cours need of arco	
		IV	06	Croup 4 Family Coun . need & Asca	o .
1	oct.	I	06	Types of counselly.	Visit to Parisa
		正	06	method of comy, Director Com	Paramansh Kend
		U	06	ten directive como.	
		<u> </u>	06	Electric Com. difference between direct 4 non Dire. Com.	
	Mer.	エ	66	Question. Types Marits Adama	VJ
		I	06	schedule Types maints of Demails	
		匝	0.6	Interview, Types marits & Demail	
		Ī	06	cummulativ Record areas Maril	

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Teachers Name & Signature

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Dr. Archana Gupta

Session 2023 - 2024

Class: - M.Sc. III Semester

Paper: Advanced study in Human Development - I

Teaching Plan for the Academic year- 23-24

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	15 th July to	T .	06	Biological and development perspectives on youth and adulthood	
	7th August	I	06	pevelopmental task during adulthood	
		III	06	Marriage and marital adjustment	
2	August	I.	06	Erikson's sixth stage of Psycho-social DevIntimegy/sisolation	,
		I	06	Developmental task in middle age.	
		πr	0.0	Parenthood as a developmental	
		<b>1</b> 11	06_	Relationship with maturing childrenduring middle age.	1
3	September	I	06	Health& changes	
		ij.	06	Menopause and andropause/ male climacteric	
		Ħ	06	Physical changes in women and Behavioral changes	•
		IV	06	Psychological changes in man Behavioral changes	
4	October	T	06	Women's health problems after Heart disease	
		I	۵6	Bone loss, osteoporosis	1
		ш	06	Breast cancer	
		TV	06	Hoomone replacement theory	
5	November	T.	o Ç	Stress Types of stressors	
		n l	06	Management of stress.  Crists interventions Marital  Suicide attempts	
		TU	06	Crists interventions marital	•
		IV	06	out el as accer pes	
		7 ^		Pisasters and death	
	December	1		Final Examination	-

शास. मो. ह. गृहिवहाः, एव विशास पहिला महाविद्यालय, जयलप्र HIM

Teachers Name & Signature

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## Session 2023-2024

Class: - M.SC III

Paper: IT ferson with Special

(eaching Plan for the Academic year ....2023 - 2024 ..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	T	Lbleck	6	Various approaches in defining disability	
MANUFACTURE OF THE PARTY OF THE	July	2 WECK	6	understanding disability classification of impairment	
		3Weck	6	physical, Intellectual impair.	
		4 Week	. 6	Emolional, Sensory impairment	
2		LWeck	6	Attitudes of people towards disability	
The state of the s	August	2 Week	6	Orthopedic & Locomotive Impairment	
		3 Week	6	Meaning and concept of orthopedic & Locomotive Impairment	ot .
	- N	4 Week	. 6	Identification & causes of orthopedic & Locomotive Impairem	
3		T Meck	6	classification	. 7
	September	2 Week	6	Educational Provisions. Visual Impairment-Meaning	
		3 Week	6	concept and Identification of visual Impairment	
		4 Week	6	Causes and classification of visual impairment	
4		I Week	6	Educational provisions	
	october	2 Week	6	Meaning & corrept of hearing impairment	
	-	3 Week	6	Identification & classification of hearing Impairment	
		4 Week	6	causes of problems of hearing Impairment, Educational provisions.	
5	Hovember	T Meek	6	Meaning & concept of speech Impairment	
		2 Week	6	Identification and types of speech Impairment	
		3 Week	6	Causes & problems of Speech Impairment	
		7 Week	6	Problems and Educational Provisions of Speech Impairmen	t

Miwas DR ABHA TIWARI

Teachers Name & Signature

joor. M. H. College of Home Sc. @ Sc. for Women, Jabalbur (MP)

#### Session 2023-24

Class: -M. Se III Sem

III Principles of Guid Paper:-

eaching Plan for the Academic year ............... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		T	06	Gen. Intro. 4 Syllabus discussion	
	July	n	06	Meaning & need of Guid Acous	
		1-17	06	Deffini. 4 objectives of Guddlen	u,
		TV	06	Principles 4 different between Guico	P
2		I	06	Meaning & need of Good model	
	Aug.	П	06	fundamental of Guid model	
		四	06	Types of Guida, model	,
		丘	06	contempoury model of Girt	
3	5.0	I	06	Skill of cours, process of cours	
	Sep	I	06	Cormseller- Counstre relationship	9
		D	06	Individual Cours need of areas	
		IV	06	Group 4 Family Coun . need & Area	or .
4	oct.	T	06	Types of councilly.	Visit to Parissan
		工	06	Method of Cours; Director Cours	
		III	06	tendirebre como.	
		<u>[v</u>	06	Elcenne Cirun difference between direc 4 ren Dire. Cony	
5	Nov.	Ī	66	Question. Types Marils. Ademar	J
		I	06	Schedule Types Maints & Amails	
		匝	06	Interview, Types marits & Demait	×
		17	06	Commulative Reard areas Marily	
	Dee.			final Prichald Theory	

tinal Prichald Theory

Aser Teachers Name & Signature

Dr. Archana Guplz

Session 2018 - 2024

Class: - M. Sc. III Scm H. D. Paper:- IV

Mental Health and Psychopothology.

Teaching Plan for the Academic year This 2023 Under graduate/ Post graduate.

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1		I	06.	General Introduction	
	July	I	०६	Syllabus discussion. Montral Health, meaning, conn	at states and the
		皿	୭ଜ	Importance of menta Health Thysical, mental and social	
		IK.	06.	elements of baptyress. In privation	wellbeing. Happyness.
2		エ	06	the privation syndrome, oraternal	73.7
	August	正	06	Depaivation Strew. and adjustment disponden	federance study
		TI	06	Categories of stresson. Positive and Magative stress.	Stress reduction
		11/	06	Streamy of strees factors influed Stocks. Characteristics of Foldmual.	
3	Zelatenfer	I	06	Bedravious, concept of leasing	
		I	OG .	Adolosont behaviour problems	
		_111	06	Hyper activity- child-problem	<pre>&lt;+udy Childhood</pre>
		IV	06.		behavious problems
4	October.	エ	06	Psychosocial model of	
		I	•	Psychopathology.	To study
			06	Freud concept of psychoandyld	s bemor of, consider
		III	06.	Psychodyonamic model.  Bedavious model.	Unconcious mine
		IV	o6.	Cognitive model Piaget	
	Nov.	I	06.	Psychotherapies.	C737
		П	06	Bychodynamic Henapy	Aralyasis
		III	06	Behaviour therapy.	V
		10	06	Cognitive behaviour	
				therapy (CBT) perision and discussion.	

Teachers Name & Signature

Teachers Name & Signature

Walnus And Andrew Shawn stava.

Session 2024 - 2025

Class: - M.Sc. III Semester

Paper: Advanced study in Human Development - I

Teaching Plan for the Academic year - 24-25

..... Under graduate/ Post graduate

S. No	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Activity
1	15 th July to		06	Biological and development perspectives on youth and adulthood	And the second control of the second control
	7th August	I	06	Developmental task during adulthood	
		II	06	Marriage and marital adjustment	
2	August	I,	06	Erikson's sixth stage of Psycho-social DevIntimegy's isolation	h
		I	06	Developmental task in middle age.	
		TIL.	06_	Parenthood as a developmental experience Relationship with maturing	
			s # 1 *	childrenduring middle age.	
3	September	I	06	Health& changes Meropause and andropause	
		Ï	06	male climacteric	
		ĦÎ	06	Physical changes in women and Behavioral changes	
		IV	06	Psychological changes in man Behavioral changes	. *
1 .	October	I	06	Women's health problems after Heart disease	
		I	06	Bone loss, osteoporosis	
		Ш	06	Breast cancer	
		TV	06	Hoomone replacement therry	
	November	T.	o Ç	Strees Types of streasons	
i		Ī	06	Mangaph ent of 5tress.	
1		Ш	06	Crists interventions marital disorder Suicide attempts	
. !		JV	06	Pisasters and death	
· · · · ·	pecember			Final Examination	



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Teachers Name & Signature

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## numan pevelopment pepartment –

## Session 2024 2025

Class: - M.SC JII

Paper: IT Person with Speci

Teaching Plan for the Academic year .... 2024- 2025.... Under graduate/ Post graduate

S. No	Month & No of Working days	. Week	No. of Periods per week	Topics to be covered	Co-curriculum Activit
1		Lhleck	6	Various approaches in defining disability	
	July	2 WECK	6	understanding disability classification of impairment	
		3 Weck	66	Physical, Intellectual impair.	
		4 Week	6	Emotional, Sensory impairment	
2		LWEEK	6	Attitudes of people towards disability	
	August-	2 Week	6	Orthopedic & Locomotive Impairment	•
		3 Week	6	Meaning and concept of orthopedic & Locomotive Impairmen	<b>}</b>
		+ Week	6	Identification & causes of orthopedic & Locomotive Impaisem.	
		1 Week	6	Classification	
	September	2 Week	6	Educational provisions: Visual Impairment-Meaning	
		3 Week	6	concept and Identification of visual Impairment	
		4 Week	6	causes and classification of visual impairment	
	- 1	1 Heek	6	Educational provisions	
(	october	2 Week	6	Meaning & concept of hearing Impairment	Ž
	3	3 Week	6	Identification & classification of hearing Impairment	• .
	.,	+ Week		hearing Impairment, Educational provisions	
14	lovernber	Meek	6	Meaning & concept of speech Impairment	
	2	Meek	6	Identification and types of speech Impairment	
	3	Week	6	Cayses & Problems of Speech Impairment	
	4	Week	6	Problems and Educational rovisions of speech Impairment	

Himasi DR ABHA TIWARI Teachers Name & signature

WIND W. E. TERSHA IN PRINT

#### Session

Paper:- IV

Teaching Plan for the Academic year 2024 25 Under graduate / Post graduate /

icilling Flatt to	the re-			Co-curriculum Activity
Month & No. of Working	Week	No. of Periods per week		
uays	エ	06.	General Inhoduction	
July	I	06	Montal Health, mean of const	pt defenence study- Internet:
	皿	ø6	Thysical, Mental and so is a	mullering.
	IF	o6 ·	Elements of walthress. To brigation	Happy news.
	I	•6	The same of the same	federance (tudy,
August	I	06	Stocks. and adjustment also much	Stress reduction
	TIL	06	Categories of Stresson.	-tacker) muse -
	117	06	Stress of stress factors influences.	appraach.
September	工	06 .	Behaviour disorder of childhood	-  -  -
	工	06.	Adolosaint tolurious problems	< tudy
	111	06	Ayres activety- child-probless	childhood
	1	06.	ADHA emotional problems.	behavious problems
11 taben	I	06	Psychosocial model of	
VC/ OFC II		1 2 + n	Psychopathology.	To study
	I	06	Freud concept of psychoandy	rds tower of, consider
			Bychodynamic model.	Subconcious , and
	1111	06.	Bedavisus model.	Duran
	IV	6	Cognitive model (Praget)	
Nov.	I	06.	trychotherapies.	CBT
	旦	061	Bychodynamic thetapy	Gray large
	THE -	06	Behaviour therapy.	the state of the s
	130 191	06	Cognitive behaviour	
			therapy (CBT) perission and discussion.	
	Month & No. of Working days July  August Septembers Octobers.	Month & No. of Working days  July  August  II  III  III  III  III  III  III  I	Month & No. of Periods per week  I OG.  III OG.  III OG.  August II OG.  August II OG.  September II OG.  III OG.	Periods per week  Of Working  Of General Introduction  Syllabus discussion.  Montal Health, meaning, come  Importance of mental Health  Taysoical, mental and so civil  well keing. And tappyness. It provides  The privation syndrame and the milk  August I of teprivation syndrame and the milk  of teprivation  September I of stress and adjustment discorder  Stress, and adjustment discorder  of stress, and adjustment discorder  for the privation of stress influe  Stress, and adjustment discorder  of stress, and adjustment discorder  of stress, and adjustment discorder  of the privation of stress influe  Stress, and adjustment discorder  of stress, and adjustment discorder

शास. मो. ह. गृहविज्ञान एवं विज्ञास क्रिक क्रिला महाविधालय जवलपुर

Teachers Name & Signature

DS-Manuika Shiraotava.

# Human Development Department - Paper - I

Te S.	Month & N	ir the A	$5c\cdot I$ $_{5cm}$	of Human Devel
No 1	of Working days	Week	No. of Periods per week	Topics to be covered Co curriculum Activity
2	July	I II II II	06 06 06	Ethological Theory-Darvin Logical Theory-Darvin Boulby, Cross Cultural
	August	IIII	06 06 06	Freudis Psychoanalydicthony Neo-Freudians-Honney Form Sulivan Learning Theory-Parby Watson, Skinner
3	September	五世四四	06 06 06	Cognitive Development though Piagets theory Piagets theory Vygotsky's theory
4	October	THHU	06. 06 06	Social learning & Cognition thany Bandways theory Theory of Self Mead, Kohut, Mayer Briggs Type indicator, Johan, Ka Kan Herman, s, Eastern & hilosophy
5	November	工工工工	06 06 06	Humanistic Psychology Desidenious Grasmus Sin Thomas More Developmental Ancory
-	December		_	Final Exam

April

Mens Madhur Khandelkar

Class: - M. SC. I Sem (Human Development) Session - 2020 - 21 Teaching Plan for the

i. Vo	Month & No.	the Ac	ademic ye	Paper: III	itombs & bear
1	of Working days	Week	reriods per	Topics to be covered	ate/ Post graduate
		I	Week OG	Principle	
	July	I	06	Principles Of ECCE, Syllabus discussion, Importance of ECCE Objectives of ECCE, Types Of Prieses	visit to
	. 0	III	06	Pole-Schools Balwadi, Anganwadi, Play center	Mortessori School
2		IA	06	Concepts of found, Non-formaled	
		I	06	Contribution of the thinkers to the development of ECCE	
	August	II	06	to the development of ECCE Pastalozzi, Rousseau, Fuobel	
	U	$\overline{\mathcal{M}}$	06	Maria Montessori, John dewy	
_		IV	06	M.K. Grandhi, Ravindranath Tagor	
3		I	06	Contribution of the agencies to ECCE in India - ICCW, IAPE	
	Castanbau	$\pi$	06	NCERT, ICDS, UNICEF	
	September	亚	06	NCTE, Mabile Creche	
		TV	06	Concept of Organization 2 administration of F.C. Centro	
4		I	06	concept of organization 2 administration of Ecclentre Building 2 equipment of Eccle Centre	
		II	06	Record & Report	
	October	T	06	Planning: Setting goals & Objectives of plans-long term	
		V	06	Activities for ECCE	
5		I	06	Languge Ards	
		I	06	Art and craft activities (Creative activities of Express	ion
	November	加	06	Music and Malhs activity	ie
		IV	06	Science & Social science	

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Mrs. Shruli Singh-Longh Teachers Name & Signature

# Human Development Department - Paper - I

Class: M. Sc. I som

2021.22 paper: History & thron

Teaching Plan for the Academic ye

..... Under graduate/ Post graduati

S. No 1	aching Plan			/ A /13/11/20
3	Month & No of Working days	). Week	No. of Periods per week	Topics to be covered
3	July	I II II	06 06 06	Eulytheories - Locke, Royson Ethological Theory - Darvin Logrenz, Tinbergen Boulby, Cross Cultural orelevance
4	August	TIIII	06 06 06	Freud's Psychoenalyticthory Neo + Freudians - Honney From Sulivan. Learning Theory - Parb V Watson, Skinner Cognitive Development thory
	Septembe	五日日日	06 06 06 06	Piagets theory Piagets theory  Vygotsky's theory
	October	T T II II	06. 06 06	Social learning & cognition thany Bandwra's theory Theory of Self Mead, Kohut, Mayer Briggs Type indicator, Johan, Ka kan Hermanis, Eastern & hilosophy
•	Vovember	丁丁丁口	06	Humanistic Psychology Desiderious Gramus Sin Thomas Mare Developmental Ameony Final Exam

December

Teachers Name & Signature MP15: Madhuri Khandelkar Varder arenet HELDELINE STUNGS

$\tau_{e}$	Clas	s:- M	· Sc. I se	Session Paper T
	Month & of Workin	or the	Academic ye	Paper: 115 My 4 175 Sev of Human Dev Under graduate/ Post graduate
2	July	I II II	Periods per week  06  06  06  06	Earlytheories - Locke, Royson Ethological Theory - Darvin Logranz, Tinbergen Boulby, Cross Cultural
	August	TIII I	06 06 06	Freudis Psychoanalydicthory Neo - Freudians - Honney From Sulivan. Learning Theory - Parlov
_	peptembe	江山田区	06 06 06	Cognitive Development thouy Piagets theory Piagets theory Vygotsky's theory
000	tober	工工工工工	06 06 06	Social learning & cognition thany Bandway's theory Theory of Self Mead, Kohut, Mayer Briggs Type indicator, John, Kokan
No	viember	丁丁丁丁	06	Hermanis, Eastern Philosophy Humanistic Psychology Desidenious Gramus Sin Thomas More Developmental Poveony
Deci	mber			Final Exam

Final Exam Vecomber

Mers Madhwi Khandeka

## Session 2022-23

Class: - M. S.C. I Sen (Human Development) paper: Ill Land & Educations

Teaching Plan for the Academic ve 2022 - 23 (July) ...... Under graduate/ Post graduate

lo	Month & No. of Working days	Week	No. of Periods per	Topics to be covered	60-601
		I	06	Principles Of ECCE, Syllabus discussion, Importance of ECCE	visit to
	July	I	06	Objectives of Learning	1100
	1.00	III	06	Pare-Schools Balwadi, Arganwadi, Play conto	
		IA	06	Concepts of formal, Non-formaled	
en age		I	06	to the development of ECCE	
	August	II	06	Pretalozzi, Rousseau, Frances	
	August	III	06	Maria Montessori, Jahn deur	<b>d</b>
		IV	06	M.K. Grandhi, Ravindranath Tago	
3		I	06	Contribution of the agencies to EccEin India - ICM, IAPE	
	1	II	06	NCERT, ICDS, UNICEF	
	September	III	06	NCTE, Mabile Creche	
		IV	06	concept of organization & administration of Eccent	ou.
4		I	06	Building & equipment of ECCE Centine	
		II	06	Record & Report	
October	TI	06	Planning: Setting goals & Objectives of plans-long-te	на	
		亚	06		
5		I	06	Language Arts	
		I	06	Art and craft activities of Expre	win
	November	III	06	Music and Malhs active	itie
		IV	06	Science & social science	

5	e	S	S	io	n

Session

Session

Session

Session

Replan for the Sc. I Scm 2023-24 Paper: History & theory of Human Dev, Teaching Plan for the Academic

1	days	3 Ande	Academic ye  k No. of Periods per week	Under graduate/ post and
2	July	TI TI	06 06 06	Edhological Theory - Darvin Lorenz, Tinbergen
3	August	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	06 06 06	Forevolis Psychoenalyticthony Neo - Freudians - Honney Forom Sulivan Learning There a
4	Septembe	工工工工	06 06 06	Cognitive Development thony Piagets theory Piagets theory
	October	TITI	06 06 06	Social learning & Cognition thany Bandways theory Theory of Self Mead, Kohut, Meyer Briggs Appeindicular, Johan, Ka kay
	November	丁丁丁丁	06 H 06 g	Jermanis, Eastern Philosophy umanistic Psychology Desidenious Brasmus Sin Thomas Mare Developmental Hoverry

Final Exam

How Transfer of Pastoers Name & Signature After of the Mandelking Mandelking Mrs. Madhwi Khandelkan

## Session 2023-24

B Plan for the Academic ye 2023-24 (July) ..... Under graduate/ Post graduate

1	Month & No. of Working days	Week	No. of Periods per week	Topics to be covered	Co-curriculum Accord
L		I	06	Principles of ECCE, Syllabus discussion, Importance of ECCE	visit to,
	July	工	06	Objectives of ECCE, Types of	Mosterson
	. 0	Ш	06	Prie-Schools Bahvadi, Arganwadi, Play center	
		IA.	06	To A Launal Novi-Turing god	And the second lives of th
2		エ	06	to the development of ECCE	
	August	II	06	Pastalozzi, Rousseau, Frobel	
	August	皿	06	Maria Montessori, Jahn dewey	
		IV	06	M.K. Grandhi, Ravindranath Tagor	
3		I	06	Contribution of the agencies to ECCE in India - ICCW, IAPE	
	1 1	II	06	NCERT, ICDS, UNICEF	
	September	皿	06	NCTE, Mabile Creche	
		IV	06	concept of organization & administration of Eccentre	
4		I	06	Building & equipment of ECCE Centine	
		II	06	Record & Report	
Octob	October	11	06	Planning: Setting goals & Objectives of plans-long-term	
		V	06	Activities for ECCE	
5		T	06	Languge Arts	
		I	06	Aut and craft activities of Expression	*
	November	皿	06	Music and Malhs activitie	
		IV	06	Science & social science	

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Mrs. Swuli Singh - 1 Teachers Name & Signature

Class: M. Sc. I sem Teaching Plan for the Academic ye

Session

Paper - I

A		1 1/2	10
2024-25	Paper:	History	f theories an Develop
*****	Under era	of Hum	an Develop

No	Month & No	те д	cademic y	Paper: History & the
1	days	. Week	No. of Periods no	Under good Human De
	July	11111111111111111111111111111111111111	Week 06 06 06 06	Contriculum Activit  Early theories - Locke, Roysxar  Ethological Theory - Darvin
2	August	I II II IV	06	Prevence Frenchis Psychoenalyticthony Neo - Frenchians - Honny From Sulivan
	September	I	0G 0G 0G 0G	Learning Theory - Parb v Watson, Skinner Cognitive Development thouy Piagets theory Vu antick will
4	October	TITI	06 06 06	Social learning & Conition thany Bandway's theory Theory of Self Mead, Kohut, Mayer Briggs Type indicates 1
4	November	丁丁丁	06 06	Type indicator, John, Kg kan Hermanis, Eastern Philosophy Humanistic Psychology Desidenious Grasmus Sin Thomas Mare Developmental Anneony
O	ecomber			Final Exam

Final Exam

Anny Teachers Name & Signature

.1.SC. ISEM (Human Development)

Early childhood & Education

Couly childhood & Education

Under graduate/ Post graduate n for the Academic ye 2024-25 (July).

	working days	Week	No. of Periods per week	Topics to be covered  Co-curriculum Activity
	July .	I	06	Principles Of ECCE, Syllabus discussion, Importance of ECCE Visit do
		工	06	UDICIIWI NIFCCE T.
		III	06	Pere-Schools Montessaui Balwadi, Anganwadi, Play center School
		IA	06	Concepts of formal, Non-formales
	August	I	06	Contribution of the thinkers to the development of ECCE
		I	06	Pastalozzi, Rousseau, Frabel
		$\overline{\mathbb{I}}$	06	Maria Montessori, Jalin dewy
		IV	06	M.K. Grandhi, Ravindranath Tagor
	September	I	06	Contribution of the agencies to ECCE in India - ICW, IAPE
		I	06	NCERT, ICDS, UNICEF
		Ⅲ	06	NCTE, Mabile Cheche
		IV	06	concept of organization 2 administration of ECCCentre Building 2 equipment of ECCE Centre
		エ	06	Building & equipment of
	October	II	06	Record & Report
5		711	06	Planning: Setting goals & Objectives of plans-long-term
		亚	06	Activities for ECCE
		I	06	Language Ards
	November	I	06	Art and Graft is on Expression
		III	06	and Mid III according
		IV	0	Science & social science