

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD  
LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Meenu Dua</b> <b>Class And Section: B.Sc.(med)5<sup>th</sup> sem sec- A&amp; B</b> <b>Subject physical chemistry</b>	
Day 1	<b>Spectroscopy-I</b> Electromagnetic radiation, regions of spectrum.
Day 2	Basic features of spectroscopy, statement of Born -oppenheimer approximation, Degrees of freedom.
Day 3	<b>Rotational Spectrum</b> -Diatomic molecules. Energy levels of rigid rotator (semi-classical principles).
Day 4	Selection rules, spectral intensity distribution using population distribution (Maxwell-Boltzmann distribution).
Day 5	Determination of bond length, qualitative description of non-rigid rotator, isotope effect.
Day 6	<b>Test.</b>
Day 7	<b>Spectroscopy-II</b> <b>Vibrational spectrum-</b> Infrared spectrum: Energy levels of simple harmonic oscillator, selection rules.
Day 8	Pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies.
Day 9	Effects of anharmonic motion and isotopic effect on the spectra., idea of vibrational frequencies of different functional groups.
Day 10	<b>Test and Assignment.</b>
Day 11	<b>Raman Spectrum:</b> Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules.
Day 12	Selection rules, Quantum theory of Raman spectra.
Day 13	<b>Quantum Mechanics-I</b> Black-body radiation.
Day 14	Plank's radiation law.
Day 15	Photoelectric effect, Heat capacity of solids.
Day 16	Compton effect, wave function and its significance.
Day 17	Postulates of quantum mechanics
Day 18	Quantum mechanical operator, commutation relations, Hamiltonal operator.
Day 19	Hermitian operator, average value of square of Hermitian as a positive quantity, Role of operators in quantum mechanics.
Day 20	To show quantum mechanically that position and momentum cannot be predicated simultaneously..
Day 21	<b>Test and Assignment.</b>
Day 22	Determination of wave function & energy of a particle in one dimensional box, Pictorial representation and its significance.
Day 23	<b>Physical Properties and Molecular Structure-</b> Optical activity, polarization – (Clausius–Mossotti equation).
Day 24	Orientation of dipoles in an electric field, dipole moment.
Day 25	Measurement of dipole moment-temperature method and refractivity method.

Day 26	Dipole moment and structure of molecules.
Day 27	Magnetic permeability, magnetic susceptibility and its determination.
Day 28	Application of magnetic susceptibility, magnetic properties – paramagnetism, diamagnetism and ferromagnetics.
Day 29	Test and assignment
Day 30	Revision
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\*As per number of periods /week

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LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Meenu Dua</b> <b>Class And Section: B.Sc.(non-med)5<sup>th</sup> sem</b> <b>Subject physical chemistry</b>	
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\*As per number of periods /week :2

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Sheel Singh</b>	
<b>Class And Section: Section A and B</b>	
<b>Subject: Plant Physiology</b>	
Day 1	Properties of solution suspension and collides
Day 2	Colloidal nature of Protoplasm
Day 3	Permeability and theories of membrane permeability and factors
Day 4	Imbibition and diffusion
Day 5	Imbibition pressure diffusion pressure and factors
Day 6	Osmosis TP WP DPD water potential plasmolysis and deplasmolysis
Day 7	Test from the topics which are taught
Day 8	Absorption and transportation of water
Day 9	Ascent of Sap theories criticism and factors
Day 10	Physiology of guard cells theories related to opening and closing of stomata
Day 11	Absorption and transportation of minerals
Day 12	Update of mineral nutrition active and passive methods
Day 13	Mineral nutrition macronutrients
Day 14	Mineral nutrition , classification types and micronutrients
Day 15	Deficiencies symptoms occurrence and importance of of micronutrients
Day 16	Deficiencies symptoms occurrence and importance of macronutrients to plants, theories related to translocation of organic solutes
Day 17	Test of translocation and mineral nutrition
Day 18	Photosynthesis introduction and Basic concept
Day 19	Photochemical reaction and light reaction
Day 20	Z scheme and Photo phosphorylation
Day 21	Dark reaction in photosynthesis
Day 22	C <sub>3</sub> and C <sub>4</sub> cycles
Day 23	C <sub>2</sub> cycle ,photorespiration
Day 24	Factors affecting rate of photosynthesis
Day 25	Significance of photosynthesis and blackman's law of limiting factor
Day 26	Revision of photosynthesis
Day 27	Test related to photosynthesis
Day 28	Growth and development in plants and growth regulators
Day 29	Auxins
Day 30	Growth hormone gibberellin ,Its history and biosynthesis
Day 31	Gibberellin , physiological role and its significance
Day 32	Class test from mineral and nutrition
Day 33	Growth hormone cytokinin its history physiological role and significance
Day 34	Growth hormone Absciscic acid and ethylene
Day 35	Class test from growth hormone
Day 36	Physiology of flowering Vernalization its introduction and significance
Day 37	Photoperiodism introduction , Photoperiodism short day, long day and day

	neutral plants
Day 38	Photoperiodism role of phytochrome anthesin in and florigen
Day 39	Flowering Hormone and gibberellin
Day 40	Comparisons between vernalisation photoperiodism phototropism and different growth hormones
Day 41	Introduction to dormancy and germination of seeds, quiescence and dormancy its difference and bud dormancy
Day 42	Physiology of seed germination and how translocation takes place , Methods of breaking seed dormancy, germination of seeds,
Day 43	Plant Movement , types and differences
Day 44	Revision
Day 45	Class test of unit IV
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\*As per number of periods /week

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LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Beena sethi</b> <b>Class And Section: BSc Med 3rd Sem</b> <b>Subject: Inorganic Chemistry</b>	
Day 1	Introduction to D-Block Elements,Position in the periodic table
Day 2	General characteristic and properties of d block elements
Day 3	Comparison of properties of 3d elements with 4d and 5d elements with reference to ionic radii,oxidation state.
Day 4	Comparison of magnetic and spectral properties ,stereochemistry
Day 5	Stability of various oxidation states and e.m.f
Day 6	Structures and properties of some compounds of transition elements
Day 7	Assignment -Doubt class
Day 8	Test of D Block elements
Day 9	Introduction to coordination compounds, Werner's theory of coordination compounds
Day 10	Types of ligands ,chelates,effects
Day 11	Nomenclature of coordination compounds
Day 12	Effective atomic number and Practice of nomenclature
Day 13	Assignment
Day 14	Isomerism in coordination compounds
Day 15	Geometrical and optical isomerism
Day 16	Valence bond theory of transition metal complexes
Day 17	Applications of valence bond theory
Day 18	Colours and Magnetic properties of coordination compounds
Day 19	Limitations of VBT and Doubt class



Day 20	Assignment
Day 21	Test
Day 22	Non aqueous solvents ,physical properties of solvents
Day 23	Types of solvents
Day 24	Their general properties
Day 25	Reactions in non aqueous solvents with reference to liquid ammonia and liquid sulphur dioxide
Day 26	Revision and Doubt class of Unit-1
Day 27	Revision and Doubt class of Unit-2
Day 28	Revision and Doubt class of Unit-3
Day 29	Practice of important questions
Day 30	Practice of important questions
Day 31	Revision
Day 32	
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LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Dr.Shveta Arya</b> <b>Class And Section:BS.c Medical 5<sup>th</sup></b> <b>semester &amp; Section -A &amp; B</b> <b>Subject: Fish &amp; Fisheries</b>	
Day 1	Introduction to the syllabus and discussion about books.
Day 2	Introduction to world fisheries: production, utilization and demand
Day 3	Continued
Day 4	Fresh water fishes of India: River system
Day 5	Pond fisheries
Day 6	Tank fisheries, Captive and Culture fisheries
Day 7	Continued
Day 8	Reservoir fisheries
Day 9	Test
Day 10	Cold water Fisheries

Day 11	Discussion regarding Fresh water Fisheries
Day 12	Fishing Gears
Day 13	Continued
Day 14	Fishing Crafts
Day 15	Test
Day 16	Fin Fishes and their Culture
Day 17	Crustaceans and their culture
Day 18	Mollusca and their Culture
Day 19	Seeds production
Day 20	Natural seed resources -its assessment, collection, Hatchery production.
Day 21	Continued
Day 22	Discussion regarding seed production
Day 23	Nutrition: Sources of food (Natural, Artificial)
Day 24	Test
Day 25	Feed composition ( Calorie and Chemical ingredients).
Day 26	Field Culture: Ponds
Day 27	Continued
Day 28	Cage culture
Day 29	Continued
Day 30	Polyculture
Day 31	Continued
Day 32	Revision
Day 33	Test
Day 34	Running water culture
Day 35	Continued
Day 36	Test
Day 37	Recycled water culture
Day 38	Culture technology: Biotechnology, gene manipulation
Day 39	Continued
Day 40	Cryopreservation
Day 41	Revision
Day 42	Test of unit-4
Day 43	Revision
Day 44	Test
Day 45	Revision
Day 46	
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<b>Name of the professor: Vandana Kumari</b>	
<b>Class : B.Sc.(Non-Med) 5<sup>th</sup> Sem</b>	
<b>Subject: Numerical Analysis (Math-III)</b>	
Day 1	Introduction of the Syllabus
Day 2	Introduction to Finite Difference Operators
Day 3	How to make Forward and Backward Difference tables and examples
Day 4	Relation between Shift Operators, Forward Difference Operators, Backward Difference Operators
Day 5	Some examples
Day 6	More Examples
Day 7	Exercise
Day 8	Finding the missing Term and their examples
Day 9	Effect of error in difference tabular values
Day 10	Examples
Day 11	Introduction to Interpolation with equal intervals
Day 12	Derivation of Newton's Gregory Forward interpolation formula
Day 13	Examples,
Day 14	Exercise
Day 15	Doubts
Day 16	Derivation of Newton's Gregory Backward interpolation formula
Day 17	Examples, Exercise and problems
Day 18	Subdivided intervals and their examples
Day 19	Exercise
Day 20	Doubts
Day 21	Test
Day 22	Introduction to Interpolation with Unequal Intervals and Divided Differences
Day 23	Derivation of Newton's Divided Difference Interpolation Formula and few theorems
Day 24	Examples
Day 25	Exercise
Day 26	Derivation Lagrange's interpolation Formula
Day 27	Examples, Exercise and problems
Day 28	Derivation of Hermite's interpolation Formula
Day 29	Examples, Exercise and problems
Day 30	Introduction to Central Differences
Day 31	Derivation of Gauss's Forward interpolation Formula
Day 32	Derivation of Gauss's Backward interpolation Formula
Day 33	Examples, Exercise and problems
Day 34	Derivation of Sterling's interpolation Formula
Day 35	Examples, Exercise and problems
Day 36	Probability distribution of Random variables, Mean and Variance
Day 37	Examples
Day 38	Exercise and problems
Day 39	Binomial distribution of Random variables, Mean and Variance

Day 40	Poisson's distribution of Random variables, Mean and Variance
Day 41	Examples, Exercise and problems
Day 42	Normal distribution of Random variables, Mean and Variance
Day 43	Examples, Exercise and problems
Day 44	Assignment
Day 45	Derivative of functions using interpolation formula's with equal intervals
Day 46	Derivative of functions using interpolation formula's with unequal intervals
Day 47	Examples, Exercise and problems
Day 48	Derivative of functions using central difference interpolation formulas
Day 49	Examples, Exercise and problems
Day 50	Introduction to Eigen value problems
Day 51	Power Method
Day 52	Examples, Exercise and problems
Day 53	Jacobi's Method
Day 54	Examples, Exercise and problems
Day 55	HouseHolder Method, QR Method, Lanczo's Method
Day 56	Examples, Exercise and problems
Day 57	Introduction to Numerical Integration Newton Cote's Quadrature Formula
Day 58	Trapezoidal Rule Simpson's 1/3 Rule Simpson's 3/8 Rule
Day 59	Explain how to use Mathematics table booklet
Day 60	Examples
Day 61	Exercise and problems
Day 62	Chebychev Formula
Day 63	Examples, Exercise and problems
Day 64	Gauss Quadrature Formula
Day 65	Examples, Exercise and problems
Day 66	Doubts
Day 67	Test
Day 68	Numerical Solution of Ordinary Differential Equation Single Step Methods: Euler's Method
Day 69	Numerical Solution of Ordinary Differential Equation Single Step Methods: Euler's Modified Method
Day 70	Numerical Solution of Ordinary Differential Equation Single Step Methods: Picard's Method
Day 71	Numerical Solution of Ordinary Differential Equation Single Step Methods: Taylor's Series Method
Day 72	Numerical Solution of Ordinary Differential Equation Single Step Methods: Runge-kutta Method
Day 73	Doubts
Day 74	Numerical Solution of Ordinary Differential Equation Multiple Step Methods: Milne-Simpson's Method
Day 75	Examples
Day 76	Exercise
Day 77	Numerical Solution of Ordinary Differential Equation Multiple Step Methods: Adam-Bashforth Method
Day 78	Examples

Day 79	Exercise
Day 80	Revision Unit -1
Day 81	Revision Unit -1
Day 82	Revision Unit -2
Day 83	Revision Unit -2
Day 84	Revision Unit -3
Day 85	Revision Unit -3
Day 86	Revision Unit -4
Day 87	Revision Unit -4
Day 88	Discuss Previous years Question Papers
Day 89	Discuss Previous years Question Papers
Day 90	Discuss Previous years Question Papers

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LESSON PLAN FOR THE SESSION 2022-23\

<b>Name of the Professor: Ms. Renu Pandey</b>	
<b>Class And Section: B.sc. Biotechnology</b>	
<b>Ist year</b>	
<b>Subject: Cell biology (BT 103)</b>	
Day 1	Unit I Introduction of syllabus
Day 2	No class
Day 3	classification of organisms by cell structure
Day 4	No class
Day 5	compartmentalization of eukaryotic cells
Day 6	Membrane as Dynamic Entity
Day 7	cytosol
Day 8	No class
Day 9	Cell Membrane
Day 10	No class
Day 11	Chemical components of biological membranes
Day 12	Permeability
Day 13	organization of plasma membrane
Day 14	No class
Day 15	membrane transport
Day 16	No class
Day 17	Assignment discussion & Revision
Day 18	Fluid Mosaic model
Day 19	Fluid Mosaic model
Day 20	No class
Day 21	cell recognition

Day 22	No class
Day 23	UNIT II: Membrane Vacuolar system
Day 24	Vacuolar system
Day 25	Microfilaments
Day 26	No class
Day 27	Intermediate filaments
Day 28	No class
Day 29	Test
Day 30	Endoplasmic reticulum: Structure
Day 31	protein segregation
Day 32	No class
Day 33	Endoplasmic reticulum function
Day 34	No class
Day 35	Golgi Complex
Day 36	structure
Day 37	Chemical composition& Biogenesis
Day 38	No class
Day 39	Test
Day 40	No class
Day 41	Revision
Day 42	protein secretion
Day 43	Structure and functions Ribosomes
Day 44	No class
Day 45	Structure and functions Ribosomes
Day 46	No class
Day 47	Mitochondria: Structure
Day 48	Mitochondria: biogenesis
Day 49	mt Genomes
Day 50	No class
Day 51	Chloroplasts: Structure
Day 52	No class
Day 53	Chloroplasts: genomes
Day 54	Test
Day 55	Chloroplasts: biogenesis
Day 56	No class
Day 57	Nucleus: Structure
Day 58	No class
Day 59	Nucleus: Structure
Day 60	Cell cycle (Interphase & M Phases)
Day 61	Cell cycle (Interphase & M Phases)
Day 62	No class
Day 63	Cell cycle (Interphase & M Phases)
Day 64	No class
Day 65	Regulation of cell cycle.
Day 66	revision
Day 67	Extracellular Matrix
Day 68	No class
Day 69	Composition, macromolecules



Day 70	No class
Day 71	molecules that mediate cell adhesion
Day 72	molecules that mediate cell adhesion
Day 73	membrane receptors for extra cellular matrix
Day 74	No class
Day 75	membrane receptors for extra cellular matrix
Day 76	No class
Day 77	membrane receptors
Day 78	extra cellular matrix
Day 79	extra cellular matrix
Day 80	No class
Day 81	Assignment discussion
Day 82	No class
Day 83	Cancer
Day 84	Molecular basis of cancer
Day 85	Revision unit I
Day 86	No class
Day 87	Revision unit II
Day 88	No class
Day 89	Revision unit III
Day 90	Revision unit IV

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LESSON PLAN FOR THE SESSION 2022-23

<b>Name of Professor: Ms.RenuPandey</b>	
<b>Class :B.Sc. Biotechnology IInd year</b>	
<b>Subject: Bioanalytical tools (BT 303)</b>	
Day 1	NO CLASS
Day 2	Introduction
Day 3	NO CLASS
Day 4	UNIT I Simple microscopy
Day 5	Simple compound light microscopy
Day 6	phase contrast microscopy
Day 7	NO CLASS
Day 8	florescence microscopy
Day 9	NO CLASS
Day 10	electron microscopy
Day 11	assignment 1
Day 12	TEM and SEM
Day 13	NO CLASS
Day 14	pH meter

Day 15	NO CLASS
Day 16	Absorption spectroscopy
Day 17	Emission spectroscopy
Day 18	Test
Day 19	NO CLASS
Day 20	UNIT II Principle of absorption fluorimetry
Day 21	NO CLASS
Day 22	law of absorption fluorimetry
Day 23	Colorimetry
Day 24	Infra-red spectrophotometry
Day 25	NO CLASS
Day 26	spectrophotometry (visible)
Day 27	NO CLASS
Day 28	Spectrophotometry (infra-red)
Day 29	spectrophotometry (UV)
Day 30	cell fractionation techniques
Day 31	NO CLASS
Day 32	isolation of sub-cellular organelles and particles
Day 33	NO CLASS
Day 34	UNIT III Introduction of chromatography
Day 35	principle of chromatography
Day 36	Paper chromatography
Day 37	NO CLASS
Day 38	thin layer chromatography
Day 39	NO CLASS
Day 40	column chromatography: silica and gel filtration
Day 41	chromatography: silica and gel filtration
Day 42	affinity and ion exchange chromatography
Day 43	NO CLASS
Day 44	gas chromatography
Day 45	NO CLASS
Day 46	HPLC
Day 47	UNIT IV Introduction to electrophoresis.Starch-gel
Day 48	principle
Day 49	NO CLASS
Day 50	Polyacrylamide gel
Day 51	NO CLASS
Day 52	Starch-gel
Day 53	Native PAGE
Day 54	Assignment
Day 55	NO CLASS
Day 56	Agarose Gel
Day 57	NO CLASS
Day 58	Cellulose gel
Day 59	SDS-PAGE
Day 60	SDS-PAGE
Day 61	NO CLASS
Day 62	

Day 63	NO CLASS
Day 64	Immuno electrophoresis
Day 65	Immuno electrophoresis
Day 66	Test
Day 67	NO CLASS
Day 68	
Day 69	NO CLASS
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Day 73	NO CLASS
Day 74	2D gel electrophoresis
Day 75	NO CLASS
Day 76	Agrose-gel electrophoresis
Day 77	
Day 78	
Day 79	NO CLASS
Day 80	Assignment
Day 81	NO CLASS
Day 82	
Day 83	Isoelectrofocussing
Day 84	Introduction to Nanotechnology
Day 85	NO CLASS
Day 86	Biosensors
Day 87	NO CLASS
Day 88	Revision
Day 89	Revision
Day 90	Revision

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LESSON PLAN FOR THE SESSION 2022-23

**Name of Professor**

**Ms. Renu Pandey**

**Class : B.Sc. Biotechnology IIIrd Year**

**Subject: Genomics & Proteomics (BT504)**

**Lectures per week: 4**

Day 1	NO CLASS
Day 2	Introduction Of The Syllabus
Day 3	NO CLASS
Day 4	NO CLASS

Day 5	Introduction to genomics
Day 6	DNA sequencing methods
Day 7	NO CLASS
Day 8	manual & automated
Day 9	NO CLASS
Day 10	NO CLASS
Day 11	manual & automated
Day 12	Maxam and Gilbert
Day 13	NO CLASS
Day 14	Sanger's method.
Day 15	NO CLASS
Day 16	NO CLASS
Day 17	Assignment
Day 18	Chain termination method
Day 19	NO CLASS
Day 20	Pyrosequencing
Day 21	NO CLASS
Day 22	NO CLASS
Day 23	Test
Day 24	Genome Sequencing methods
Day 25	NO CLASS
Day 26	Shot Gun Method
Day 27	NO CLASS
Day 28	NO CLASS
Day 29	Hierarchical (clone contig) methods
Day 30	Computer tools for sequencing projects
Day 31	NO CLASS
Day 32	Managing and Distributing Genome Data
Day 33	NO CLASS
Day 34	NO CLASS
Day 35	Web based servers and softwares for genome analysis
Day 36	Web based servers and softwares for genome analysis
Day 37	NO CLASS
Day 38	Test
Day 39	NO CLASS
Day 40	NO CLASS
Day 41	UCSC Genome Browser
Day 42	VISTA, NCBI genome
Day 43	NO CLASS
Day 44	Selected Model Organismal Genomes and Databases.
Day 45	NO CLASS
Day 46	NO CLASS
Day 47	UNIT III Introduction to protein.
Day 48	Chemical properties of proteins
Day 49	NO CLASS
Day 50	Physical interactions that determine the property of proteins
Day 51	NO CLASS
Day 52	NO CLASS

Day 53	Physical interactions that determine the property of proteins
Day 54	electrostatic forces, vander waal interactions
Day 55	NO CLASS
Day 56	Determination of sizes (Sedimentation analysis, gel filtration)
Day 57	NO CLASS
Day 58	NO CLASS
Day 59	Edman degradation
Day 60	(SDS-PAGE); Native PAGE
Day 61	NO CLASS
Day 62	UNIT IV Introduction to Proteomics
Day 63	NO CLASS
Day 64	NO CLASS
Day 65	Analysis of proteomes, 2D- PAGE.
Day 66	Sample preparation
Day 67	NO CLASS
Day 68	Solubilization, Reduction
Day 69	NO CLASS
Day 70	NO CLASS
Day 71	Reproducibility of 2D-PAGE
Day 72	Mass spectrometry based methods for protein identification
Day 73	NO CLASS
Day 74	Mass spectrometry based methods for protein identification
Day 75	NO CLASS
Day 76	NO CLASS
Day 77	De novo sequencing using mass spectrometric data.
Day 78	De novo sequencing using mass spectrometric data.
Day 79	NO CLASS
Day 80	Top Down.
Day 81	NO CLASS
Day 82	NO CLASS
Day 83	Bottom Up seq
Day 84	Assignment
Day 85	NO CLASS
Day 86	Revision
Day 87	NO CLASS
Day 88	NO CLASS
Day 89	Revision
Day 90	Revision

\*As per number of periods/ week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Manisha Suri</b> <b>Class And Section:B.Sc &amp; B.A. 1<sup>st</sup> sem</b> <b>Subject: Solid Geometry (BM-113)</b>	
Day 1	Introduction to syllabus and preliminaries
Day 2	General equation of second degree Introduction to conics section, classification of conics section, general equation of second degree always represent a conic section
Day 3	Center of a conic section, to find equation of conic when center is at origin, Find the coordinates of center of conic section
Day 4	Find asymptotes of conics, examples and exercise
Day 5	To find length and equation of axes of conics To find foci of conics To find directrices of conics
Day 6	Examples and exercise
Day 7	To find length and equation of axes of conics To find foci of conics To find directrices of conics
Day 8	Examples and exercise
Day 9	Intersection of general conics and a line, equation of tangents, to find equation of pair of tangent and equation of chord with middle point
Day 10	Determine Locus of middle points, Condition for two straight line which is parallel to the two conjugate diameters, Condition for line touching the conics, chord of contact
Day 11	Equation of polar of a point, to find pole of the line, to find equation of director circle, tangents, foci
Day 12	Examples and exercise
Day 13	Test
Day 14	Tracing of conics, examples and exercise
Day 15	System of conics conic through five points, intersection of two conics, find equation of conics through intersection of conics and two given straight lines
Day 16	To Find equation of a conic having double contact with a conic, examples
Day 17	exercise and problems
Day 18	Confocal conics confocal parabola, confocal ellipse, confocal hyperbolas, confocal with ellipse confocal conics through a given point, coordinates in terms of the parameter of the confocal
Day 19	some theorem on confocal conics
Day 20	Examples and exercise
Day 21	Assignment
Day 22	Polar equations of a conic polar coordinates, distance formula, area of a triangle, equation of line in polar

	coordinates, colloary, polar equations of a circle
Day 23	Polar equation of conics, polar equation of a conic with a focus as a pole Equation of directries, equation of chord, equation of tangent
Day 24	Equation of normal, prove tangent at extrimities of any focal chord intersect on directrix, asymptotes director circle
Day 25	Tracing of conics
Day 26	Problems
Day 27	Examples and Exercise
Day 28	Problems
Day 29	Sphere equation of sphere, diametric form of sphere
Day 30	
Day 31	Examples and Exercise
Day 32	problems
Day 33	Four -point form, examples and exercise, equation of circle, exampls and exercise
Day 34	Intersection of two sphere, examples and exercise, sphere and a line, exercise and examples, diameter plane, tangent plane
Day 35	examples and exercise
Day 36	Plane of contact, polar of a given plane, polar lines, equation of polar of a line
Day 37	Examples and exercise
Day 38	Two or more sphere, exercise, length of tangent, examples and exercise
Day 39	problems
Day 40	class test
Day 41	Paraboloids,number of normal, normal to an elliptic paraboloid
Day 42	Exercise and examples
Day 43	problems
Day 44	Cone Homogeneous equation, equation of cone, example discussion
Day 45	Exercise and problems
Day 46	Problems, Right circular cone, quadratic cone through axes,enveloping cone, examples
Day 47	Exercise
Day 48	Problems ,cone and a line, angel between two plan, examples
Day 49	Exercise and problems
Day 50	Doubt Class
Day 51	Test
Day 52	Cylinder Quadratic cylinder, right circular cylinder, examples
Day 53	Exercise
Day 54	Enveloping cylinder, exercise and examples
Day 55	Problems
Day 56	Class test
Day 57	Assignment
Day 58	The Conicoid Central conicoids, trace the hyperboloid of one sheet, two sheet, ellipsoid of

	revolution tangent plane
Day 59	Director circle, normal, examples and exercise
Day 60	Number of normal, cubic curve through the feet of normal, quadratic cone through six concurrent normal
Day 61	examples and exercise
Day 62	problems, polar plane of a point, reciprocal property, polar of a given plane lines, polar of a line with a conicoid
Day 63	examples and exercise
Day 64	Enveloping cone, cylinder, examples and exercise
Day 65	Plane section with a given center, examples and exercise
Day 66	Plane section of a conicoid Length and direction ratios of the axes of a central section, area of central plane section, examples and exercise
Day 67	Axes of noncentral plane section exercise and examples
Day 68	Problems
Day 69	Circular section, examples and exercise
Day 70	Plane section of paraboloids, circular section of paraboloids, exercise and examples
Day 71	Generating lines generating lines of hyperboloid of one sheet, examples and exercise
Day 72	Generating lines of a hyperbolic paraboloids, examples and exercise
Day 73	Confocal conicoids Three confocal through a point, confocal touching a given line, confocal cut at right angle elliptic coordinates
Day 74	Examples and exercise
Day 75	problems
Day 76	Doubtt Class
Day 77	Revision
Day 78	Revision
Day 79	Revision
Day 80	Parameter of confocal through a point, locus of poles of planes, normal to three condocal, Equation to enveloping cone
Day 81	Exercise and examples
Day 82	Reduction of second degree equation Introduction of line and conicoid, diameter planes, principle planes, center of surface transformation,
Day 83	examples and exercise
Day 84	Examples
Day 85	Assignment
Day 86	Test
Day 87	Revision of Unit 1



Day 88	Revision of unit 2
Day 89	Revision of unit 3
Day 90	Revision of unit 4

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Manisha Suri</b>	
<b>Class And Section:B.Sc &amp; B.A. 5<sup>th</sup> sem</b>	
<b>Subject: Groups &amp; Rings (BM-352)</b>	
Day 1	Introduction to Binary operation Ch-1
Day 2	Groups & Properties of Groups
Day 3	Examples of 1.1
Day 4	Exercise 1.1
Day 5	Theorems of Exercise 1.2
Day 6	Examples of 1.2
Day 7	Exercise 1.2
Day 8	Doubts
Day 9	Subgroups and Examples
Day 10	Cyclic groups
Day 11	Theorems of cyclic groups
Day 12	Exercise 1.3 & 1.4
Day 13	Test of ch-1
Day 14	Introduction to Cosets Ch-2
Day 15	Theorems Of cosets
Day 16	Index of Subgroup & Normal Subgroup
Day 17	Exercise 2.1
Day 18	Quotient group
Day 19	Exercise 2.2 & 2.3
Day 20	Test of ch-2
Day 21	Introduction to Homomorphism & Isomorphic Groups Ch-3
Day 22	Kernel Of Homomorphism
Day 23	Fundamental Theorems on Homomorphism of Groups(First theorem)
Day 24	Fundamental Theorems on Homomorphism of Groups(Second theorem)
Day 25	Fundamental Theorems on Homomorphism of Groups(Third theorem)
Day 26	Exercise 3.1
Day 27	Introduction To Automorphism & Examples

Day 28	Group Of Automorphism of a Group
Day 29	Group Of Automorphism of a cyclic Group
Day 30	Characterstic subgroups
Day 31	Exercise 3.2 & 3.3
Day 32	Doubt class
Day 33	Revision of ch-3
Day 34	Test of ch-3
Day 35	Introduction to Permutation of Groups Ch-4
Day 36	Theorems & Examples of Permutation
Day 37	Even ,Odd, Cyclic permutation
Day 38	Introduction to Rings Ch-5
Day 39	Types of Rings &Examples
Day 40	Integral Domain & Field
Day 41	Theorems Of Integral domain
Day 42	Exercise 5.1
Day 43	Introduction to Subrings &Examples
Day 44	Theorems of Subrings
Day 45	Introduction to Characterstics Of a Ring
Day 46	Theorems Of Characterstics of Ring
Day 47	Exercise 5.2
Day 48	Introduction to Ideals & Theorems Ch-6
Day 49	Theorems of Principal Ideal Ring
Day 50	Introduction to Simple Ring & Theorems
Day 51	Maximal Idea & Theorems Of Maximal Ideals
Day 52	Theorems of Quotient Ring
Day 53	Exercise 6.1
Day 54	Test of ch-6
Day 55	Introduction to Ring Homomorphism & ExamplesCh-7
Day 56	Theorems Of Ring Homomorphism
Day 57	Kernel of a Ring Homomorphism & Examples
Day 58	Fundamental Theorem Of Homomorphism
Day 59	Embedding of Rings
Day 60	Field of Quotient Of an Integral Domain
Day 61	Exercise 7.1
Day 62	Introduction to Commutatative Rings ch-8
Day 63	Euclidean Rings
Day 64	Examples of Euclidean Rings
Day 65	Theorems of Euclidean Rings
Day 66	Theorems of Euclidean Rings cont..
Day 67	Theorems of PID
Day 68	Exercise 8.1
Day 69	Test of 8.1
Day 70	Introduction to Polynomial Rings & Examples Ch-9
Day 71	Polynomial Ring over a ring
Day 72	Set of constant Polynomial $R[x]$

Day 73	Polynomials over an integral domain
Day 74	Polynomials over a field
Day 75	Division algorithm for $F[x]$
Day 76	Remainder & Factor theorem
Day 77	Theorem of PID & UFD
Day 78	Primitive polynomial
Day 79	Gauss Lemma
Day 80	Theorems of irreducible element of $R[x]$
Day 81	Field Quotient of a UFD
Day 82	Theorems of Field Quotient
Day 83	Lemma
Day 84	$R$ is a UFD so $R[x]$
Day 85	Eisenstein's Irreducibility criterion
Day 86	Exercise 9.1
Day 87	Revision of unit-I
Day 88	Revision of unit-II
Day 89	Revision of unit-III
Day 90	Revision of unit-IV

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Manisha Suri</b>	
<b>Class And Section:B.Sc &amp; B.A 3<sup>rd</sup> semester</b>	
<b>Subject:PDE (BM-232)</b>	
Day 1	Introduction to Partial differential equation
Day 2	Formation of equation by the elimination of arbitrary constants CH-1
Day 3	Examples
Day 4	Exercise 1.1
Day 5	Doubt class of ex 1.1
Day 6	Formation of equation by the elimination of arbitrary function
Day 7	Examples
Day 8	Exercise 1.2
Day 9	Doubt class of Ex 1.2
Day 10	Revision of ch-1
Day 11	Test of ch-1
Day 12	Introduction to first order linear partial differential equation CH-2
Day 13	Solution of Langrange's linear equation
Day 14	Type I-IV
Day 15	Exercise 2.1
Day 16	Doubt class of ex 2.1
Day 17	Test of ch-2

Day 18	Assignment of ch-1 & 2
Day 19	Introduction to First Order Non linear PDE Ch-3
Day 20	Condition of compatibility
Day 21	Examples & theorems of compatibility
Day 22	General method of solution(Charpit's Method)
Day 23	Examples of Charpit's method
Day 24	Exercise 3.1
Day 25	Exercise 3.2
Day 26	Some standard forms(Form-I-IV)Examples
Day 27	Examples of forms cont..
Day 28	Exercise 3.3
Day 29	Doubt class
Day 30	Jacobi's Method
Day 31	Exercise 3.4
Day 32	Doubt class
Day 33	Test of ch-3
Day 34	Assignment of ch-3
Day 35	Introduction to Linear PDE of second and Higher orders Ch-4
Day 36	Solution of non-homogenous linear PDE with constant coefficients
Day 37	Examples
Day 38	Exercise 4.1
Day 39	Doubt class of Ex 4.1
Day 40	Solution of non homogenous linear Partial differential Equation with constant coefficients
Day 41	Case of repeated factors
Day 42	Case when pde cannot be resolved into linear factors
Day 43	Rule for writing C.F. Of Non-homogenous linear equations
Day 44	Examples of repeated factors
Day 45	Examples of Equations cannot be resolved into linear factors
Day 46	Examples of non-homogenous Partial differential Equation
Day 47	Exercise 4.2
Day 48	Doubts Class
Day 49	Test of ch-4
Day 50	Assignment of ch-4
Day 51	Introduction to variable coefficients reducible to equations with constant coefficients Ch-5
Day 52	Examples discussed
Day 53	Exercise 5.1
Day 54	Doubts of ex 5.1
Day 55	Test of ch-5
Day 56	Introduction to classification and canonical forms of second order linear PDE Ch-6
Day 57	Classifications examples
Day 58	Ex 6.1
Day 59	Working Rule for Reduction to Canonical Forms
Day 60	Examples of hyperbolic equations
Day 61	Exercise 6.2
Day 62	Doubt Class

Day 63	Reduction of Parabolic to Canonical Forms
Day 64	Exercise 6.3
Day 65	Doubt class of 6.3
Day 66	Reduction of Elliptic to Canonical Forms
Day 67	Examples
Day 68	Exercise 6.4
Day 69	Doubt class
Day 70	Solution of linear Hyperbolic Equations
Day 71	Examples Of Riemann's Method
Day 72	Green's Function Examples
Day 73	Exercise 6.5
Day 74	Introduction to Monge's Method for PDE of Second order Ch-7
Day 75	Exercise 7.1
Day 76	Exercise 7.2
Day 77	Introduction of characteristics Equation and Characteristics curves Ch-8
Day 78	Exercise 8.1
Day 79	Introduction to wave Equation Ch-9
Day 80	Method of separation of variables(one Dimensional Wave Equation)
Day 81	One Dimensional & 2 dimensional Wave Equation subject to Initial & Boundary Conditions
Day 82	Exercise 9.1
Day 83	Method of separation of variables(one & 2 Dimensional hEAT Equation)
Day 84	One Dimensional & 2 dimensional hEAT Equation subject to Initial & Boundary Conditions
Day 85	Method of separation of variables(Laplace Equation)
Day 86	Laplace Equation subject to Initial & Boundary Conditions
Day 87	Exercise 9.3
Day 88	Revision of UNIT-I&II
Day 89	Revision of UNIT-III
Day 90	Revision of UNIT-IV

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Assistant Professor: Ms. Shilpa Khetan</b>	
<b>Class and Section: B.sc &amp; B.A I st year</b>	
<b>Subject: Algebra</b>	
<b>Date</b>	<b>Topics</b>
Day 1	<b>Orientation of the students</b>
Day 2	<b>Orientation of the students</b>
Day 3	Introduction of the book
Day 4	Chapter-1 'Matrices' Introduction
Day 5	Theorem based on matrices
Day 6	Exercise-1.1
Day 7	Symmetric and Hermittian matrix
Day 8	Exercise-1.2
Day 9	Doubts of chapter-1
Day 10	Chapter-2 'Rank of a matrix' Introduction
Day 11	Minors or rank of a matrix
Day 12	Exercise-2.1
Day 13	Elementary operations
Day 14	Row echelon and column echelon matrix
Day 15	Exercise-2.2
Day 16	Normal form of a matrix
Day 17	Theorems on elementary matrices
Day 18	Exercise-2.3
Day 19	Linear dependence and independence of row and column matrices
Day 20	Theorems on linear dependence and independence
Day 21	Exercise-2.4
Day 22	Doubts of the chapter
Day 23	Test
Day 24	Chapter-3 'Characteristic equation of a matrix' Introduction
Day 25	Eigen vector or latent vector
Day 26	Exercise-3.1
Day 27	Scalar polynomial and matrix polynomial
Day 28	Exercise-3.2
Day 29	Theorems and exercise-3.3

Day 30	Monic polynomial
Day 31	Exercise-3.4
Day 32	Doubts of the chapter
Day 33	Chapter-4 'Applications of matrices to a system of linear equations' Introduction
Day 34	Solution of system of non-homogeneous equations
Day 35	Exercise-4.1
Day 36	Solution of system of homogeneous equations
Day 37	Exercise-4.2
Day 38	Chapter-5 'Orthogonal and Unitary matrices' Orthogonal matrix and its properties
Day 39	Unitary matrix and its properties
Day 40	Exercise-5.1
Day 41	Doubts of the chapter
Day 42	Chapter-6 'Bilinear and Quadratic forms' Linear transformation
Day 43	Factorizable bilinear form
Day 44	Exercise-6.1
Day 45	Quadratic forms
Day 46	Exercise-6.2
Day 47	Linear transformation of a quadratic form
Day 48	Exercise-6.3
Day 49	Factorable quadratic forms
Day 50	Exercise-6.4 and doubts
Day 51	Chapter-7 'Relation between the roots and coefficients of an equation' Polynomial
Day 52	Remainder theorem and Factor theorem
Day 53	Exercise-7.1
Day 54	Fundamental theorem of Algebra
Day 55	Exercise-7.2
Day 56	Relation between the roots and the co-efficient of an equation
Day 57	Exercise-7.3
Day 58	To find the condition that the roots of the given equation satisfy a given relation
Day 59	Exercise-7.4
Day 60	Common roots of two equations
Day 61	Exercise-7.5
Day 62	Doubts of the chapter
Day 63	Chapter-8 'Transformation of equations' Roots with signs changed
Day 64	Reciprocal roots and equation
Day 65	Exercise-8.1
Day 66	Roots diminished by a given number
Day 67	Transformation of the cubic and biquadratic
Day 68	Exercise-8.2

Day 69	Transformation in general
Day 70	Exercise-8.3
Day 71	Equation of squared differences of a cubic
Day 72	Exercise-8.4
Day 73	Chapter-9 'Solution of cubic and biquadratic equations' Cubic equations
Day 74	Exercise-9.1
Day 75	Descarte's solution of the biquadratic
Day 76	Exercise-9.2
Day 77	Ferrari's method of solving a biquadratic
Day 78	Exercise-9.3
Day 79	Doubts of the chapter
Day 80	Test
Day 81	Revision
Day 82	Chapter-10 'Descarte's rule of signs' Definitions
Day 83	Complex roots
Day 84	Examples
Day 85	Exercise
Day 86	Doubts
Day 87	Doubts
Day 88	Revision
Day 89	Test
Day 90	Revision

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. RADHIKA</b>	
<b>Class And Section: B sc medical 1st sem</b>	
<b>Subject: Diversity of microbes</b>	
Day 1	Introduction of cell biology
Day 2	Types of cells



Day 3	Prokaryotic cell : structure
Day 4	Eukaryotic cell : structure
Day 5	Difference between Prokaryotic and eukaryotic cell
Day 6	Cell wall : composition
Day 7	Cell wall : composition
Day 8	Plasma membrane: structure
Day 9	Plasma membrane: composition
Day 10	Unit membrane model
Day 11	Fluid mosaic model
Day 12	Functions of cell membrane
Day 13	Cell sap
Day 14	Cell organelles: General characteristic
Day 15	Endoplasmic Reticulum: structure
Day 16	Endoplasmic Reticulum: Functions
Day 17	Golgi apparatus: structure
Day 18	Golgi apparatus: Functions
Day 19	Mitochondria: structure
Day 20	Mitochondria: Functions
Day 21	Ribosome: structure
Day 22	Ribosome: Functions
Day 23	Chloroplast: structure
Day 24	Chloroplast: Functions
Day 25	Other micro bodies
Day 26	Other micro bodies
Day 27	Peroxisome: structure and Functions
Day 28	Nucleus: structure

Day 29	Functions
Day 30	Nucleolus: structure
Day 31	Functions
Day 32	Nuclear pore complex and Functions
Day 33	Chromosomes:structure
Day 34	Chromosomes: types on the basis of centromere position
Day 35	Heterochromatin and euchromatin region
Day 36	Nucleosome model
Day 37	Genetic material: DNA
Day 38	Special types of chromosome: General characteristic
Day 39	Lamp brush chromosome
Day 40	Polytene chromosome
Day 41	Sex chromosome
Day 42	Cell division: General introduction
Day 43	Amitosis and mitosis
Day 44	Meiosis
Day 45	Meiosis and significance
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\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Radhika</b> <b>Class And Section: B sc medical 1st sem</b> <b>Subject: Diversity of microbes</b>	
Day 1	Introduction
Day 2	Virus: General characteristic
Day 3	Bacteriophage: Structure
Day 4	TMV: Structure
Day 5	Mode of viral transmission
Day 6	Lytic and lysogenic cycle

Day 7	Bacteria: General characteristic
Day 8	Types of bacteria
Day 9	Bacteria: nutrition
Day 10	Economic importance of Bacteria
Day 11	Economic importance of bacteria
Day 12	Cyanobacteria: General characteristic
Day 13	Structure of <i>Nostoc</i>
Day 14	Economic importance of Bacteria
Day 15	Economic importance of Cyanobacteria
Day 16	Algae : General characteristic
Day 17	Structure and lifecycle of <i>Volvox</i>
Day 18	Structure and lifecycle of <i>Oedogonium</i>
Day 19	Structure and lifecycle of <i>Vaucheria</i>
Day 20	Structure and lifecycle of <i>Ectocarpus</i>
Day 21	Structure and lifecycle of <i>Ectocarpus</i>
Day 22	Structure and lifecycle of <i>Polysiphonia</i>
Day 23	Structure and lifecycle of <i>Polysiphonia</i>
Day 24	Economic importance of Algae
Day 25	Economic importance of Algae
Day 26	Fungi: General characteristic
Day 27	Structure and lifecycle of <i>Phytophthora</i>
Day 28	Structure and lifecycle of <i>Mucor</i>
Day 29	Structure and lifecycle of <i>Penicillium</i>
Day 30	Structure and lifecycle of <i>Puccinia</i>
Day 31	Structure and lifecycle of <i>Puccinia</i>
Day 32	Structure and lifecycle of <i>Puccinia</i>

Day 33	Structure and lifecycle of <i>Agaricus</i>
Day 34	Structure and lifecycle of <i>Colletotrichum</i>
Day 35	Economic importance of Fungi
Day 36	Economic importance of Fungi
Day 37	Lichen: General characteristic
Day 38	Types of Lichens
Day 39	Economic importance of Lichens
Day 40	Economic importance of Lichens
Day 41	Plant pathology
Day 42	Plant pathology
Day 43	Plant pathology
Day 44	Plant pathology
Day 45	Revision
Day 46	
Day 47	
Day 48	
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Associate/Assistant Professor: Dr. Jasvinder Kour</b>	
<b>Class And Section: B.Sc. Biotechnology 1<sup>st</sup> Year</b>	
<b>Subject: Plant Diversity I and Bioprospecting (BT-102)</b>	
<b>Mode Of Teaching: Offline</b>	
<b>Lectures Per Week: 4</b>	
Day 1	General character of Algae
Day 2	General character of Algae
Day 3	General character of Algae
Day 4	-
Day 5	classification and economic importance
Day 6	-
Day 7m	classification and economic importance
Day 8	Chlorophyceae – Volvox
Day 9	Chlorophyceae – Volvox
Day 10	-
Day 11	Chlorophyceae – Oedogonium
Day 12	-
Day 13m	Chlorophyceae – Oedogonium
Day 14	Xantho phyceae –Vaucheria
Day 15	Xantho phyceae –Vaucheria
Day 16	-
Day 17	Phaeophyceae – Ectocarpus
Day 18	-
Day 19m	Phaeophyceae – Ectocarpus
Day 20	Rhodophyceae-Polysiphonia
Day 21	Rhodophyceae-Polysiphonia
Day 22	-
Day 23	Test



Day 24	-
Day 25m	General characters of Fungi
Day 26	General characters of Fungi
Day 27	classification & economic importance
Day 28	-
Day 29	Mastigomycotina- Phytophthora
Day 30	-
Day 31m	Mastigomycotina- Phytophthora
Day 32	Zygomycotina-Mucor
Day 33	Zygomycotina-Mucor
Day 34	-
Day 35	Ascomycotina- Saccharomyces
Day 36	-
Day 37m	Ascomycotina- Saccharomyces
Day 38	Basidiomycotina-Agaricus
Day 39	Basidiomycotina-Agaricus
Day 40	-
Day 41	Deutromycotina-Colletotrichum
Day 42	-
Day 43m	Classification and General structure of Lichens
Day 44	Reproduction and economic importance
Day 45	Reproduction and economic importance
Day 46	-
Day 47	Plant diseases: Rust & Smut of Wheat
Day 48	-
Day 49m	Rust & Smut of Wheat
Day 50	Test
Day 51	Test Discussion
Day 52	-
Day 53	White rust of Crucifers
Day 54	-
Day 55m	White rust of Crucifers
Day 56	Late blight of Potato
Day 57	Late blight of Potato
Day 58	-
Day 59	Red rot of Sugarcane
Day 60	-
Day 61m	Red rot of Sugarcane
Day 62	Citrus Canker
Day 63	Citrus Canker
Day 64	-
Day 65	General characters of Bryophytes
Day 66	-
Day 67m	General characters of Bryophytes
Day 68	classification & economic importance
Day 69	Marchantia
Day 70	-
Day 71	Marchantia

Day 72	-
Day 73m	Marchantia
Day 74	Marchantia
Day 75	Funaria
Day 76	-
Day 77	Funaria
Day 78	-
Day 79m	Funaria
Day 80	Funaria
Day 81	Previous Year Questions Discussion
Day 82	-
Day 83	Previous Year Questions Discussion
Day 84	-
Day 85m	Revision
Day 86	Revision
Day 87	Revision
Day 88	
Day 89	Revision
Day 90	

\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Associate/Assistant Professor: Dr. Jasvinder Kour</b>	
<b>Class and Section: B.Sc. Biotechnology 2<sup>nd</sup> Year</b>	
<b>Subject: Plant Diversity II (BT-304)</b>	
<b>Mode Of Teaching: Offline</b>	
<b>Lectures Per Week: 4</b>	
Day 1	General characters of pteridophytes
Day 2	-
Day 3	-
Day 4	-
Day 5	General characters of pteridophytes
Day 6	affinities with bryophytes & gymnosperms
Day 7	classification, economic importance
Day 8	-
Day 9	-
Day 10	-
Day 11	classification, economic importance
Day 12	Study of life histories of fossil Pteridophytes – Rhynia
Day 13	Life histories of Selaginella

Day 14	-
Day 15	-
Day 16	-
Day 17	Life histories of Selaginella
Day 18	Life histories of Selaginella
Day 19	Heterospory and seed habit
Day 20	-
Day 21	-
Day 22	-
Day 23	Equisetum
Day 24	Equisetum
Day 25	Equisetum
Day 26	-
Day 27	-
Day 28	-
Day 29	Pteris
Day 30	Pteris
Day 31	Pteris
Day 32	-
Day 33	-
Day 34	-
Day 35	Test
Day 36	Lycopodium
Day 37	Lycopodium
Day 38	-
Day 39	-
Day 40	-
Day 41	Lycopodium
Day 42	Lycopodium
Day 43	General characters of Gymnosperms
Day 44	-
Day 45	-
Day 46	-
Day 47	General characters of Gymnosperms
Day 48	geological time scale
Day 49	geological time scale
Day 50	-
Day 51	-
Day 52	-
Day 53	theories of fossil formation
Day 54	theories of fossil formation
Day 55	types of fossils
Day 56	-
Day 57	-
Day 58	-
Day 59	fossil gymnosperms - Williamsonia & Glossopteris
Day 60	fossil gymnosperms - Williamsonia & Glossopteris
Day 61	telome and steel concept

Day 62	-
Day 63	-
Day 64	-
Day 65	telome and steel concept
Day 66	Test
Day 67	Life histories of Cycas
Day 68	-
Day 69	-
Day 70	-
Day 71	Life histories of Cycas
Day 72	Life histories of Cycas
Day 73	Life histories of Pinus
Day 74	-
Day 75	-
Day 76	-
Day 77	Life histories of Pinus
Day 78	Life histories of Pinus
Day 79	economic importance of gymnosperms
Day 80	-
Day 81	-
Day 82	-
Day 83	Previous year question paper discussion
Day 84	Previous year question paper discussion
Day 85	Revision
Day 86	-
Day 87	-
Day 88	-
Day 89	Revision
Day 90	Revision

\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Associate/Assistant Professor: Dr. Jasvinder Kour</b>	
<b>Class and Section: B.Sc. Biotechnology 3<sup>rd</sup> Year</b>	
<b>Subject: Recombinant DNA Technology (BT-502)</b>	
<b>Mode Of Teaching: Offline</b>	
<b>Lectures Per Week: 4</b>	
Day 1	Gene Recombination and Gene transfer: Bacterial Conjugation
Day 2	-

Day 3	Gene Recombination and Gene transfer: Bacterial Conjugation
Day 4	-
Day 5	Transformation, Transduction
Day 6	Transformation, Transduction
Day 7	Episomes, Plasmids
Day 8	-
Day 9	Microinjection, Electroporation
Day 10	-
Day 11	Microprojectile, Shot Gun method
Day 12	Ultrasonication, Liposome fusion
Day 13	Microlaser
Day 14	-
Day 15	Changing genes: site-directed mutagenesis
Day 16	-
Day 17	Changing genes: site-directed mutagenesis
Day 18	Protein engineering: Primer extension is a simple method for site directed mutation
Day 19	Protein engineering: Primer extension is a simple method for site directed mutation
Day 20	-
Day 21	PCR based site directed mutagenesis
Day 22	-
Day 23	PCR based site directed mutagenesis
Day 24	Random mutagenesis
Day 25	Random mutagenesis
Day 26	-
Day 27	Use of Phage display techniques to facilitate the selection of mutant peptides
Day 28	-
Day 29	Use of Phage display techniques to facilitate the selection of mutant peptides
Day 30	Gene shuffling
Day 31	Gene shuffling
Day 32	-
Day 33	Test
Day 34	-
Day 35	Production of chimeric proteins
Day 36	Production of chimeric proteins
Day 37	Genetic engineering in animals: Production of transgenic mice
Day 38	-
Day 39	Genetic engineering in animals: Production of transgenic mice
Day 40	-
Day 41	ES cells can be used for gene targeting in mice
Day 42	ES cells can be used for gene targeting in mice
Day 43	Applications of gene targeting
Day 44	-
Day 45	Applications of gene targeting
Day 46	-
Day 47	Using Yeast to study Eukaryotic gene function
Day 48	Using Yeast to study Eukaryotic gene function

Day 49	Therapeutic products produced by genetic engineering-blood proteins
Day 50	-
Day 51	Therapeutic products produced by genetic engineering-blood proteins
Day 52	-
Day 53	Human hormones
Day 54	immune modulators and vaccines
Day 55	Transgenic animals
Day 56	-
Day 57	Transgenic animals
Day 58	-
Day 59	Production of proteins of pharmaceutical value
Day 60	Production of proteins of pharmaceutical value
Day 61	Test
Day 62	-
Day 63	Genetic engineering in plants: Use of <i>Agrobacterium tumefaciens</i>
Day 64	-
Day 65	Genetic engineering in plants: Use of <i>Agrobacterium tumefaciens</i>
Day 66	Genetic engineering in plants: Use of <i>Arhizogenes</i>
Day 67	Genetic engineering in plants: Use of <i>Arhizogenes</i>
Day 68	-
Day 69	Ti plasmids, Strategies for gene transfer to plant cells
Day 70	-
Day 71	Ti plasmids, Strategies for gene transfer to plant cells
Day 72	Direct DNA transfer to plants
Day 73	Direct DNA transfer to plants
Day 74	-
Day 75	Direct DNA transfer to plants
Day 76	-
Day 77	Gene targeting in plants
Day 78	Gene targeting in plants
Day 79	Use of plant viruses as episomal expression vectors
Day 80	-
Day 81	Use of plant viruses as episomal expression vectors
Day 82	-
Day 83	Use of plant viruses as episomal expression vectors
Day 84	Previous year question paper discussion
Day 85	Previous year question paper discussion
Day 86	-
Day 87	Revision
Day 88	-
Day 89	Revision
Day 90	Revision

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Professor: Dr. Mamta Singh</b> <b>Class and Section: B.Sc(med) Sem-I</b> <b>Subject: Zoology Paper 1.1(Life and Diversity from Protozoa to Helminthes)</b>	
Day 1	Introduction of syllabus and Books
Day 2	<b>Unit I -Phylum-Protozoa</b> -General characters and classification up to order level
Day 3	Topic continued
Day 4	Biodiversity and economic importance and <b>Type study</b> of <i>Plasmodium vivax</i> :Introduction, Asexual cycle and schizogony in Man
Day 5	Sexual cycle of Plasmodium in Mosquito
Day 6	Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Entamoeba histolytica</i> , and <i>Trypanosoma gambiense</i>
Day 7	Topic Continued
Day 8	Life history, mode of infection and pathogenicity of <i>Leishmania</i> and <i>Giardia</i>
Day 9	Test/Assignment
Day 10	<b>Unit II-Phylum- Porifera:</b> General characters and classification up to order level.
Day 11	Biodiversity and economic importance and <b>Type study</b> –Sycon :Systematic Position,Habitat ,Habits, Morphology ,canal system of Sycon
Day 12	Histology of Sycon, Skeleton of Sycon
Day 13	Physiology of Sycon:Movement,Nutrition,Respiration,Excretion,Nervous system and Behaviour
Day 14	Reproduction,Development or embryogeny,Metamorphosis and regeration of Sycon.
Day 15	Topic Continued
Day 16	<b>Porifera in General:</b> Canal system in Sponges: Asconoid Canal sytem,Syconoid canal system and leuconoid canal system
Day 17	Skeleton in Sponges
Day 18	Topic continued
Day 19	Test/Assignment
Day 20	<b>Unit-III-Phylum – Coelentrata</b> : General characters and classification up to order level
Day 21	Topic continued
Day 22	Biodiversity, economic importance <b>and Type Study</b> –Obelia: Systematic Position, Habitat ,Habits, Morphology
Day 23	Polymorphism in Obelia-Hydranth or Polyp
Day 24	Blastostyle or Gonozooid and Medusae or Gonophores
Day 25	Physiology of Obelia Colony:Reproduction and Life history of Obelia
Day 26	Alternation of generation or Metagenesis,Difference between Polyp and Medusa
Day 27	Homology Between Polyp and Medusa
Day 28	Coelenterata in General: Polymorphism in Coelenterate
Day 29	Coral Reefs and its importance
Day 30	Test/Assignment

Day 31	<b>Unit IV-Phylum - Helminths:</b> General characters and classification up to order level
Day 32	Topic continued
Day 33	Biodiversity, economic importance and <b>Type study</b> – <i>Fasciola hepatica</i> : Systematic Position, Habitat ,Habits, Morphology,body wall,Parenchyma
Day 34	Digestive System,Respiratory and Excretory system
Day 35	Nervous system,sense organ and Male reproductive system
Day 36	Female Reproductive System and Development and life History
Day 37	Nature of life history,Pathogenecity of <i>Faciola</i> and Parasitic Adaptations
Day 38	Test/Assignment
Day 39	Aschelminthes: Characters, Classification and Examples
Day 40	Biodiversity, economic importance
Day 41	Helminths parasites: Brief account of life history, mode of infection and pathogenecity of Schistosoma, Ancylostoma
Day 42	of life history, mode of infection and pathogenecity of Trichinella, Wuchereria and Oxyuris
Day 43	Revision
Day 44	Revision
Day 45	Test/assignment

\*As per number of periods/week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the Professor:Dr. Mamta Singh</b>	
<b>Class and Section: B.Sc(med) Sem-I</b>	
<b>Subject: Zoology Paper 1.2(Cell Biology)</b>	
Day 1	Introduction of Syllabus and books
Day 2	<b>Unit-I</b> Ultrastructure of different cell organelles of animal cell.
Day 3	Topic continued
Day 4	Plasma Membrane: Fluid mosaic model, various modes of transport across the membrane
Day 5	Mechanism of active and passive transport, endocytosis and exocytosis
Day 6	Endoplasmic reticulum (ER): types, role of ER in protein synthesis and transportation in animal cell.
Day 7	Topic continued
Day 8	Golgi complex: Structure, Associated enzymes



Day 9	Role of golgi-complex in animal cell.
Day 10	Revision
Day 11	Test/ Assignment
Day 12	<b>Unit –II</b> :Ribosomes: Types, biogenesis and role in protein synthesis.
Day 13	Topic continued
Day 14	Lysosomes: Structure, enzyme and their role
Day 15	Polymorphism
Day 16	Topic continued
Day 17	Mitochondria: Mitochondrial DNA; as semiautonomous body
Day 18	Biogenesis
Day 19	Mitochondrial enzymes ( only names), role of mitochondria
Day 20	Topic continued
Day 21	Cytoskeleton: Microtubules
Day 22	Microfilaments
Day 23	Centriole and basal body
Day 24	Cilia and Flagella
Day 25	Revision
Day 26	Test/Assignment
Day 27	<b>Unit-III</b> :Ultrastructure and functions of Nucleus: Nuclear· membrane, nuclear lamina,
Day 28	Topic continued
Day 29	fine structure of chromosomes, nucleosome concept and role of histones,
Day 30	Topic continued
Day 31	Euchromatin and heterochromatin
Day 32	Lampbrush chromosomes and polytene chromosomes
Day 33	Revision
Day 34	Test/assignment
Day 35	<b>Unit-IV:Cell Reproduction: Mitosis</b>
Day 36	Meiosis I
Day 37	Meiosis II
Day 38	Cancer Biology: Characteristics, Causes and Types of Cancer
Day 39	Danger Signals of Cancer, Therapy.
Day 40	P-53 Gene and Tumor- Suppressor Genes
Day 41	Oncogenes and Protooncogenes, Prophylaxis
Day 42	An elementary idea of cellular basis of Immunity: Antigen, Antibody, Antigen-Antibody interaction, Types of immunity
Day 43	Cells of Immune system, Types of Immune system
Day 44	Revision
Day 45	Test/Assignment
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Savita Nailwal</b> <b>Class and Section: B.Sc medical</b> <b>5<sup>th</sup> semester (sec - A&amp;B)</b> <b>Subject: Ecology&amp;Evol Evolution</b>	
Day 1	Introduction to the syllabus .
Day 2	Introduction to Ecology
Day 3	History of Ecology
Day 4	Ecology Hierarchy
Day 5	Different branches and significance of Ecology
Day 6	Concept of habitate and ecological niche
Day 7	Abiotic factors
Day 8	Light and temperature
Day 9	Humidity,topogr topography,edaphic factors
Day 10	Concept and components
Day 11	Properties and functions of Ecosystem
Day 12	Test
Day 13	Ecological energetics and energy flow -food chain
Day 14	Food web ,trophic structure
Day 15	Ecological pyramids ,concept of productivity
Day 16	Biogeochemical cycle
Day 17	Revision
Day 18	Revision
Day 19	Test
Day 20	Test
Day 21	Gaseous cycle
Day 22	Carbon cycle
Day 23	Nitrogen cycle
Day 24	Oxygen cycle
Day 25	Water cycle
Day 26	Other cycles
Day 27	Sedimentary cycle
Day 28	Phosphorus cycle
Day 29	Sulphur cycle
Day 30	Revision
Day 31	Test
Day 32	Population
Day 33	Growth and Regulations
Day 34	Test
Day 35	Concept and evidences of organic Evolution
Day 36	Theories of organic Evolution

Day 37	Concept of macro - evolution
Day 38	Concept of mega - evolution
Day 39	Revision
Day 40	Test
Day 41	Phylogeny of Horse
Day 42	Test
Day 43	Evolution of man
Day 44	Test
Day 45	Revision
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\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Komal Sharma</b>	
<b>Class And Section: B.Sc. 5<sup>TH</sup> sem(Non-Medical)</b>	
<b>Subject: Inorganic chemistry</b>	
Day 1	Metal ligand bonding, introduction
Day 2	crystal field theory for octahedral, tetrahedral
Day 3	crystal field theory for square planar, Factors affecting CFSE
Day 4	Test of crystal field theory
Day 5	Magnetic Properties of transition metal complexes
Day 6	Introduction and types of properties
Day 7	Methods to measure magnetic properties
Day 8	Relation b/w magnetic susceptibility and magnetic moment
Day 9	Orbital contribution and TIP
Day 10	Test of Magnetic Properties of transition metal complexes
Day 11	Thermodynamic and kinetic aspects of metal complexes
Day 12	Factors affecting stability of complexes
Day 13	Substitution reactions and rate law
Day 14	Trans effect and theories of trans effect
Day 15	Test of Thermodynamic and kinetic aspects of metal complexes
Day 16	Introduction of electronic spectra of transition metal complexes
Day 17	Types of electronic transition, selection of d-d transition
Day 18	Spectroscopic ground state, spectrochemical series
Day 19	Orgel energy level diagram of d1 state
Day 20	Orgel energy level diagram of d9 state
Day 21	Test of Orgel energy level diagram
Day 22	Discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion
Day 23	Test of electronic spectra
Day 24	Revision of metal ligand bonding

Day 25	Revision of metal ligand bonding
Day 26	Revision of magnetic properties of transition metal complexes
Day 27	Revision of magnetic properties of transition metal complexes
Day 28	Revision of Thermodynamic and kinetic aspects of metal complexes
Day 29	Revision of Thermodynamic and kinetic aspects of metal complexes
Day 30	Revision of electronic spectra of transition metal complexes
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\*As per number of periods /week :2

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Komal Sharma</b>	
<b>Class And Section: B.Sc. 5<sup>TH</sup> sem(Medical) sec-A&amp; B</b>	
<b>Subject: Inorganic chemistry</b>	
Day 1	Metal ligand bonding, introduction
Day 2	crystal field theory for octahedral, tetrahedral
Day 3	crystal field theory for square planar, Factors affecting CFSE
Day 4	Test of crystal field theory
Day 5	Magnetic Properties of transition metal complexes
Day 6	Introduction and types of properties
Day 7	Methods to measure magnetic properties
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Day 25	Revision of metal ligand bonding
Day 26	Revision of magnetic properties of transition metal complexes
Day 27	Revision of magnetic properties of transition metal complexes
Day 28	Revision of Thermodynamic and kinetic aspects of metal complexes
Day 29	Revision of Thermodynamic and kinetic aspects of metal complexes
Day 30	Revision of electronic spectra of transition metal complexes
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms. Reeta Kumari</b>	
<b>ClassAndSection:B.Sc.(NM)3<sup>rd</sup> sem</b>	
<b>Subject:optics-1</b>	
Day 1	Introduction about syllabus
Day 2	Speed of transverse wave on uniform string
Day 3	Speed of longitudinal waves in s fluid, superposition of waves
Day 4	Fourier analysis of complex wave
Day 5	Study of triangular wave
Day 6	Stusy of rectangular wave
Day 7	Half wave rectifier
Day 8	Full wave rectifier

Day 9	Fourier transform and its properties
Day 10	Application of fourier transform
Day 11	Assignment
Day 12	Numerical practice
Day 13	Test
Day 14	Matrix method in paraxial optics
Day 15	Effect of translation
Day 16	Effect of refraction
Day 17	Thin lense formula
Day 18	Thicklense formula
Day 19	Unit plane
Day 20	Nodal plane
Day 21	System of thin lense
Day 22	Revision
Day 23	Test
Day 24	Chromatic aberration
Day 25	Spherical aberration
Day 26	Coma aberration
Day 27	Adtigmatism aberration
Day 28	Distortion aberration
Day 29	Remedies for aberration
Day 30	Remedies for aberration
Day 31	Assignment
Day 32	revision
Day 33	Test
Day 34	Interference by division of wavefornt
Day 35	Fresnel biprism
Day 36	Applications to find wavelength of sodium lifgt.
Day 37	Revision
Day 38	Numerical practice
Day 39	Test
Day 40	Thickness of thin mica sheet
Day 41	Lloy's mirror
Day 42	Phase change on reflection
Day 43	Revision
Day 44	Revision
Day 45	Revision
Day 46	
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of professor:MS. REETA KUMARI</b>	
<b>ClassAndSection: B.sc.(N.M) sem- 1<sup>st</sup></b>	
<b>Subject: Electricity and Magnetism</b>	
Day 1	<b>Orientation of the students</b>
Day 2	Introduction about syllabus
Day 3	Scalars and vectors,dot and cross product
Day 4	Tripple vector product
Day 5	Tripple vector product
Day 6	Scalars and vectors fields, differentiation of vectors
Day 7	Integration of vector
Day 8	Gradient of a scalar and its physical significance
Day 9	Gauss's divergence theorem and Stokes theorem
Day 10	Derivation of electric field as potential gradient
Day 11	Laplace and poisson equations
Day 12	Electric flux,Gauss's law
Day 13	Appplication of Gauss's law
Day 14	Assignment
Day 15	Test
Day 16	Mechanical force of charged surface,energy per unit volume
Day 17	Megnetic induction,magnetic flux,solenoidal nature of vector field of induction
Day 18	Properties of magnetic field
Day 19	Electronic theory of diamagnetic.
Day 20	Electronic theory of paramagnetic.
Day 21	Test
Day 22	Domain theory of ferromagnetism
Day 23	Revision
Day 24	Numerical practice
Day 25	Test
Day 26	Hysteresis loop
Day 27	Hysrtresis loss and importance of hystresis curve
Day 28	Assignment
Day 29	Maxwell eqations
Day 30	Derivation of maxwell's equation
Day 31	Test
Day 32	Displacement current
Day 33	Presentation on electronic theory of diamagnetic paramagnetic and ferromagnetic
Day 34	Revision
Day 35	Vectors and scalar potentials
Day 36	Boundary conditions at interface b/w two media
Day 37	Boundary conditions at interface b/w two media
Day 38	Test
Day 39	Presentation on boundary condition

Day 40	Propagation of electromagnetic wave
Day 41	Presentation on Maxwell's equation
Day 42	Revision
Day 43	Numerical practice
Day 44	<b>Poynting vector</b>
Day 45	<b>Pointing theorem</b>
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-2023

<b>Name of the professor:Ms. Reeta Kumari</b>	
<b>Class And Section :B.Sc.(N.M) 5<sup>th</sup> sem</b>	
<b>Subject: Solid State Physics</b>	
Day 1	<b>Introduction about syllabus</b>
Day 2	<b>Crystalline and glassy solids</b>
Day 3	<b>Liquid crystal</b>
Day 4	<b>Periodicity of crystal</b>
Day 5	<b>Lattice and basis</b>
Day 6	<b>Crystal translation vectors and axes</b>
Day 7	<b>Unit cell and primitive cell</b>
Day 8	<b>Winger sietz perimitive cell</b>
Day 9	<b>Symmetry oprations for 2D</b>
Day 10	<b>Bravais lattice in 2D</b>
Day 11	<b>Bravais lattice in 3D</b>
Day 12	<b>Revision</b>
Day 13	<b>Revision</b>
Day 14	<b>Test</b>
Day 15	<b>Crystal planes</b>
Day 16	<b>Miller indices</b>
Day 17	<b>Interplanner spacing</b>
Day 18	<b>Crystal structure of zinc sulphide</b>
Day 19	<b>Crystal structure of diamond</b>
Day 20	<b>Crystal structure of NaCl</b>
Day 21	<b>Assignment</b>
Day 22	<b>X ray diffraction</b>
Day 23	<b>Revision</b>
Day 24	<b>Test</b>
Day 25	<b>Bragg's law</b>
Day 26	<b>Experimental Xray diffraction methods</b>
Day 27	<b>Experimental Xray diffraction methods</b>
Day 28	<b>K-space</b>

Day 29	<b>Assignment</b>
Day 30	<b>Reciprocal lattice and its physical significance</b>
Day 31	<b>Reciprocal lattice vector</b>
Day 32	<b>Reciprocal lattice to a simple cubic lattice</b>
Day 33	<b>Reciprocal lattice to a b.c.c</b>
Day 34	<b>Reciprocal lattice to a f.c.c</b>
Day 35	<b>Specific heat of solids</b>
Day 36	<b>Einstein's theory of specific heat</b>
Day 37	<b>Einstein's theory of specific heat</b>
Day 38	<b>Debey model of specific heat of solids</b>
Day 39	<b>Debey model of specific heat of solids</b>
Day 40	<b>Revision</b>
Day 41	Test
Day 42	Revision
Day 43	Test
Day 44	<b>Revision</b>
Day 45	<b>revision</b>
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Shipra Rani Jha</b> <b>Class And Section: B.Sc (Medical) 3<sup>rd</sup> Sem</b> <b>Section A and B</b> <b>Subject: Biology and Diversity of Seed Plant-I</b>	
Day 1	Introduction of Syllabus
Day 2	General Characters of Gymnosperm
Day 3	Origin and Evolution of Gymnosperms
Day 4	Pilger and Melchior's system of classification of Gymnosperm
Day 5	Pilger and Melchior's system of classification of Gymnosperm
Day 6	Fossils and Fossilization: Introduction
Day 7	Types and Importance of Fossils
Day 8	Reconstruction of <i>Lyginopteris</i>
Day 9	Reconstruction of <i>Lyginopteris</i>
Day 10	Test
Day 11	Reconstruction of <i>Williamsonia</i>
Day 12	Reconstruction of <i>Williamsonia</i>



Day 13	Reconstruction of <i>Cycadeoidea</i>
Day 14	Reconstruction of <i>Cycadeoidea</i>
Day 15	Oral Test on Unit II
Day 16	External morphology of <i>Cycas</i>
Day 17	Corolloid roots of <i>Cycas</i>
Day 18	Leaflet of <i>Cycas</i>
Day 19	<i>Cycas</i> Rachis: Anatomy
Day 20	Development of male gametophyte in <i>Cycas</i>
Day 21	Development of female gametophyte in <i>Cycas</i>
Day 22	Structure of Ovule and post fertilization changes in <i>Cycas</i>
Day 23	Sporophyte Development in <i>Cycas</i>
Day 24	Explanation of alternation of generation in <i>Cycas</i>
Day 25	External morphology of <i>Pinus</i>
Day 26	Anatomy of root, dwarf and long shoots of <i>Pinus</i>
Day 27	T.S. of <i>Pinus</i> needle
Day 28	Development of male gametophyte in <i>Pinus</i>
Day 29	Development of female gametophyte in <i>Pinus</i>
Day 30	Structure of Ovule and post fertilization changes in <i>Pinus</i>
Day 31	Sporophyte Development in <i>Pinus</i> (Polyembryony)
Day 32	Explanation of alternation of generation in <i>Pinus</i>
Day 33	Test
Day 34	External morphology of <i>Ephedra</i>
Day 35	Anatomy of root, scale leaves
Day 36	Development of male and female strobilus
Day 37	Development of male gametophyte in <i>Ephedra</i>
Day 38	Development of female gametophyte in <i>Ephedra</i>
Day 39	Embryo development in <i>Ephedra</i>
Day 40	Revision
Day 41	Test
Day 42	Revision of Unit I
Day 43	General Characters of Angiosperms
Day 44	Geological Time Scale
Day 45	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Shipra Rani Jha</b> <b>Class And Section: B.Sc (Medical) 3<sup>rd</sup></b> <b>Semester. Section A and B</b> <b>Subject: Plant Anatomy</b>	
Day 1	Introduction of Syllabus
Day 2	Tissues: meristematic and permanent
Day 3	Simple permanent tissues
Day 4	Structure and Function of Xylem
Day 5	Structure and Function of Phloem
Day 6	Tissue system: Epidermal, Ground and Vascular
Day 7	Tissue system: Epidermal, Ground and Vascular

Day 8	Shoot apical meristem
Day 9	Histological organizations of shoot apical meristem
Day 10	Test
Day 11	Introduction of Vascular Cambium
Day 12	Structure and function of vascular cambium
Day 13	Assignment
Day 14	Secondary growth in Dicot stem
Day 15	Characteristics of growth rings
Day 16	Sap wood and Heart wood
Day 17	Periderm and its importance
Day 18	Anomalous secondary growth in <i>Boerhaavia</i>
Day 19	Anomalous secondary growth in <i>Dracaena</i>
Day 20	Anomalous secondary growth in <i>Achyranthes</i>
Day 21	Test
Day 22	Phyllotaxy in leaves
Day 23	Types of leaves: Simple and compound
Day 24	Uniseriate and multiseriate epidermis
Day 25	Anatomy of Dicot leaf
Day 26	Anatomy of monocot leaf
Day 27	Cell inclusions in leaf
Day 28	Leaf abscission
Day 29	Stomatal apparatus and their morphological types
Day 30	Oral test on unit III
Day 31	Root apical meristem
Day 32	Histological organization of root apical meristem
Day 33	Secondary growth in Dicot root
Day 34	Structural modification in roots ( Storage, Respiratory, Epiphytic)
Day 35	Structural modification in roots ( Storage, Respiratory, Epiphytic)
Day 36	Revision
Day 37	Oral test
Day 38	Revision
Day 39	Revision
Day 40	Revision
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## LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Anita</b>	
<b>Class And Section: B.Sc. M 1st Sem</b>	
<b>Subject: Organic chemistry</b>	
Day 1	Unit 1 - Localised and delocalised chemical bonds, vanderwal interactions
Day 2	Resonance : Conditions , resonance effects and it's applications
Day 3	Hyperconjugation , Inductive effect , Electrometric effect and their comparison
Day 4	Assignment
Day 5	Chapter 2 : Stereochemistry of organic compounds I - Concept of isomerism , types of isomerism
Day 6	Optical isomerism , elements of symmetry ,
Day 7	Chiral , achiral and stereogenic center , Optical Activity
Day 8	Properties of enantiomers , chiral , achiral with two stereo genic center molecules
Day 9	Diastereomer , threo , erythro , meso compounds , resolution of enantiomers
Day 10	Inversion , retention and racimisation
Day 11	Test
Day 12	Unit 2 : Stereochemistry of organic compounds II : Relative and Absolute configuration , sequence rule , R/S system of nomenclature
Day 13	Geometric Isomerism and Determination of Configuration , E and Z system of nomenclature
Day 14	Conformational isomerism : Conformational analysis of of ethane and butane , conformation of cyclohexane axial and equitorial bonds
Day 15	Newman and sawhorse projection , difference between conformation and configuration
Day 16	Test
Day 17	Unit 3 : Mechanism of Organic Reactions ; curved arrow notation , drawing

	electron movement with arrow , homolytic and heterolytic bond cleavage
Day 18	Types of reagents : electrophiles , nucleophiles , types of Organic Reactions , energy considerations
Day 19	Reactive intermediates : Carbocation , carbanion , free radical
Day 20	Carbene , aryne, nitrenes ( Formation , structure and stability )
Day 21	Assigning formal charge on intermediates and other ionic species
Day 22	Test
Day 23	Unit 4 : Alkanes and Cycloalkanes; IUPAC nomenclature of branched and unbranched Alkanes , isomerism in Alkanes
Day 24	Method of formation of Alkanes - wurtz reaction , kolbes reactions , correy house reaction , and decarboxylation of carboxylic acids , physical properties
Day 25	Cyclo alkanes - Nomenclature , synthesis of Cycloalkanes and their derivatives , 2+2 cycloaddition Reactions
Day 26	Dehalogenation of alpha - omega dihalides , pyrolysis of calcium or barium salts of dicarboxylic theory , bayer strain theory and it's limitations , theory of strainless ring
Day 27	Test
Day 28	Revision
Day 29	Revision
Day 30	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Anita</b>	
<b>Class And Section: B.Sc. M 5th sem , Sec B</b>	
<b>Subject: Organic Chemistry</b>	
Day 1	Introduction to NMR, Principal , PMR spectrum
Day 2	No. Of signals , peak areas, equivalent and non equivalent protons
Day 3	Position of signals , Shielding and deshielding of protons.
Day 4	Chemical Shift , Proton Counting and Spilling of Signals
Day 5	Problems for Practice , Coupling Constant
Day 6	Magnetic Equivalence of Protons + Assignment
Day 7	Test of Unit 1
Day 8	Discussion of NMR Spectra of all the organic Compounds mentioned in Unit 2
Day 9	DO ,
Day 10	Test / Assignment
Day 11	Unit 3 - Classification and nomenclature of carbohydrates , monosaccharides
Day 12	Preparation and reactions of Glucose , Mechanism of Osazone formation
Day 13	Preparation and reactions of fructose , interconversion of glucose and fructose
Day 14	Chain lengthening and shortening of aldose , Configuration of monosaccharides
Day 15	Erythro and threo diastereomer , Conversion of glucose to mannose

Day 16	Formation of glycosides , ether and ester
Day 17	Assignment
Day 18	Determination of ring size of glucose and fructose , Mechanism of mutarotation
Day 19	Open chain and cyclic structure of D-(+) Glucose and D- (+) Fructose
Day 20	Structure of Ribose and deoxyribose and Revision
Day 21	Test
Day 22	Introduction to diasaccharides , maltose , sucrose and lactose
Day 23	Introduction to polysaccharide : Starch and Cellulose
Day 24	Organomagnesium compounds : Grignard reagents formation , structure and chemical Reaction
Day 25	Organozinc Compounds : Formation and Chemical Reaction
Day 26	Organolithium Compounds : Formation and Chemical Reaction
Day 27	Test
Day 28	Revision and Doubt class
Day 29	Revision and Doubt class
Day 30	Revision
Day 31	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:- Anita Yadav</b> <b>Class:-B.Sc. Non Medical 2nd year (3rd sem)</b> <b>Subject:- Physical Chemistry</b>	
Day 1	{Unit:-4}Nernst Distribution Law- it's Thermodynamics Derivation, Modification of Distribution Law when solute undergoes Dissociation
Day 2	When solute undergoes Association and chemical Combination, Application of Distribution Law (i) Determination of Degree of hydrolysis and Hydrolysis constant of aniline hydrochloride I.
Day 3	(ii) Determination of equilibrium constant of potassium tri-iodide complex and process of extraction.
Day 4	Assignment of Unit 4
Day 5	{Unit:-3} Equilibrium constant and Free Energy, Concept of chemical potential, Thermodynamics Derivation of law of chemical equilibrium.
Day 6	Temperature dependence of equilibrium constant; Van't Hoff reaction isochore
Day 7	Van't Hoff reaction isotherm,Le-chatelier's Principal
Day 8	Le-chatelier's Principal Application,Clapeyron Equation
Day 9	Clausius-Clapeyron Equation and it's Application
Day 10	Application and Assignment of Unit 3
Day 11	Test of Unit 4
Day 12	{Unit:-1} Defination of Thermodynamics terms; system and surrounding etc.
Day 13	Types of system,intensive and extensive properties.State and Path function and their differentials.
Day 14	Thermodynamics process, Concept of heat and work,Zeroth Law of thermodynamics.
Day 15	First law of thermodynamics, statement, definition of internal energy and Enthalpy.

Day 16	Heat capacity, Heat capacities at constant volume
Day 17	Heat capacities at constant Pressure and their relationship.
Day 18	Joule's Law, Joule-Thomson coefficient for ideal Gases
Day 19	Joule's Thomson coefficient for real gas and inversion temperature.
Day 20	Test of Unit 3
Day 21	{Unit:-2} Calculation of $w, q, dU$ and $dH$ for the ideal Gases Under isothermal
Day 22	Calculation of $w, q, dU, dH$ for adiabatic condition for reversible process.
Day 23	Temperature dependence of Enthalpy, Kirchoffs equation.
Day 24	Bond energies and Application of bond energies.
Day 25	Assignment of Unit:-1
Day 26	Revision
Day 27	Revision
Day 28	Revision
Day 29	Revision
Day 30	Revision
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**K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD****LESSON PLAN FOR THE SESSION 2022-23**

		<b>Name of the Professor : Ms. Ranjana</b> <b>ClassAndSection:B.sc Biotech Vth Sem</b> <b>Subject: Physical Chemistry , BT- 505</b>
Day 1	T	
Day 2	W	
Day 3	TH	
Day 4	F	
Day 5	S	
Day 6	M	
Day 7	T	
Day 8	W	
Day 9	TH	
Day 10	F	Introduction of Spectroscopy-I
Day 11	S	
Day 12	M	
Day 13	T	
Day 14	W	
Day 15	TH	
Day 16	F	Black-body radiation & Plank's radiation law & Compton effect photoelectric effect & heat capacity of solids wave function and its significance of Postulates of quantum mechanics
Day 17	S	
Day 18	M	
Day 19	T	
Day 20	W	
Day 21	TH	
Day 22	F	quantum mechanical operator, commutation relations. Hamiltonian operator, Hermitian operator, average value of square of Hermitian as a positive quantity. Assignment
Day	S	

23		
Day 24	M	
Day 25	T	
Day 26	W	
Day 27	TH	
Day 28	F	Role of operators in quantum mechanics, To show quantum mechanically that position and momentum cannot be predicated simultaneously. Determination of wave function & energy of a particle in one dimensional box, Pictorial representation and its significance
Day 29	S	
Day 30	M	
Day 31	T	
Day 32	W	
Day 33	TH	
Day 34	F	Test of Black-body radiation & heat capacity of solids. Optical activity, polarization – (clausius – Mossotti equation) Orientation of dipoles in an electric field & dipole moment.
Day 35	S	
Day 36	M	
Day 37	T	
Day 38	W	
Day 39	TH	
Day 40	F	included dipole moment, measurement of dipole moment-temperature method and refractivity method. dipole moment and structure of molecules, Magnetic permeability
Day 41	S	
Day 42	M	
Day 43	T	
Day 44	W	
Day	TH	

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Day 46	F	magnetic susceptibility and its determination & Application of magnetic susceptibility. magnetic properties – paramagnetism, diamagnetism and ferromagnetic. basic features of spectroscopy and statement of Bornoppenheimer approximation & Degrees of freedom
Day 47	S	
Day 48	M	
Day 49	T	
Day 50	W	
Day 51	TH	
Day 52	F	
Day 53	S	
Day 54	M	
Day 55	T	
Day 56	W	
Day 57	TH	
Day 58	F	Test of clausius – Mossotti equation. Diatomic molecules & Energy levels of rigid rotator. selection rules & spectral intensity distribution using population distribution (Maxwell-Boltzmann distribution
Day 59	S	
Day 60	M	
Day 61	T	
Day 62	W	
Day 63	TH	
Day 64	F	determination of bond length & qualitative description of non-rigid rotor, isotope effect. Infrared spectrum: Energy levels of simple harmonic oscillator, determination of force constant and qualitative relation of force constant bond energies
Day 65	S	
Day	M	

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Day 67	T	
Day 68	W	
Day 69	TH	
Day 70	F	determination of bond length & qualitative description of non-rigid rotor, isotope effect. Infrared spectrum: Energy levels of simple harmonic oscillator, determination of force constant and qualitative relation of force constant bond energies
Day 71	S	
Day 72	M	
Day 73	T	
Day 74	W	
Day 75	TH	
Day 76	F	effects of anharmonic motion and isotopic effect on the spectra idea of vibrational frequencies of different functional groups Concept of polarizability and pure rotational and pure vibrational Raman spectra
Day 77	S	
Day 78	M	
Day 79	T	
Day 80	W	
Day 81	TH	
Day 82	F	
Day 83	S	
Day 84	M	
Day 85	T	
Day 86	W	
Day 87	TH	
Day 88	F	pure rotational and pure vibrational Raman spectra of diatomic molecules <b>Test of</b> bond energies & effects of anharmonic motion and isotopic effect on the

		spectra
Day 89	S	-
Day 90	M	-

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD**

**LESSON PLAN FOR THE SESSION 2022-23**

		<b>Name of the Professor: Ms. Ranjana</b> <b>ClassAndSection: B.Sc Biotech Vth sem</b> <b>Subject: Inorganic Chemistry ,BT- 507</b>
Day 1	T	
Day 2	W	
Day 3	TH	
Day 4	F	
Day 5	S	Introduction of Syllabus
Day 6	M	valence bond theory Limitations of valence bond theory
Day 7	T	
Day 8	W	
Day 9	TH	
Day 10	F	
Day 11	S	an elementary idea of crystal-field theory crystal field splitting in octahedral, tetrahedral complexes
Day 12	M	crystal field splitting square planar complexes factors affecting the crystal-field parameters
Day 13	T	
Day 14	W	
Day 15	TH	
Day 16	F	
Day 17	S	factors affecting the crystal-field parameters
Day 18	M	Assignment
Day 19	T	
Day 20	W	

Day 21	TH	
Day 22	F	
Day 23	S	A brief outline of thermodynamic stability of metal complexes factors affecting the stability of metal complexes
Day 24	M	Test Of the Limitations of valence bond theory & an elementary idea of crystal- field theory.
Day 25	T	
Day 26	W	
Day 27	TH	
Day 28	F	
Day 29	S	substitution reactions of square planar complexes substitution reactions of square planar complexes
Day 30	M	Test of the crystal field splitting in octahedral, tetrahedral complexes
Day 31	T	
Day 32	W	
Day 33	TH	
Day 34	F	
Day 35	S	substitution reactions of square planar complexes of Pt(II) Magnetic Properties of Transition Metal Complexes
Day 36	M	Assignment
Day 37	T	
Day 38	W	
Day 39	TH	
Day 40	F	
Day 41	S	Types of magnetic behavior of Transition Metal Complexes methods of determining magnetic susceptibility
Day 42	M	spin-only formula & L-S coupling correlation of $\Delta S$ & Effect values
Day 43	T	
Day 44	W	orbital contribution to magnetic moments
Day 45	TH	
Day 46	F	
Day 47	S	orbital contribution to magnetic moments
Day 48	M	application of magnetic moment data for 3d -metal complexes Test of the spin- only formula & L-S coupling
Day 49	T	
Day 50	W	
Day 51	TH	
Day 52	F	
Day 53	S	Types of electronic transitions Electron Spectra of Transition Metal Complexes
Day 54	M	selection rules for d-d transitions spectroscopic ground states
Day 55	T	
Day 56	W	
Day 57	TH	
Day 58	F	
Day 59	S	Spectrochemical series

		Orgel-energy level diagram for d1
Day 60	M	Orgel-energy level diagram for d1 and d 9 states. selection rules for d-d transitions
Day 61	T	
Day 62	W	
Day 63	TH	
Day 64	F	
Day 65	S	discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.
Day 66	M	application of magnetic moment data for 3d -metal complexes Test of Orgel-energy level diagram for d1 and d 9 states
Day 67	T	
Day 68	W	
Day 69	TH	
Day 70	F	
Day 71	S	Assignment
Day 72	M	discussion of the electronic spectrum of complex ion.
Day 73	T	
Day 74	W	
Day 75	TH	
Day 76	F	
Day 77	S	
Day 78	M	Revision of substitution reactions of square planar complexes of Pt(II)
Day 79	T	
Day 80	W	
Day 81	TH	
Day 82	F	
Day 83	S	Test of the substitution reactions of square planar complexes of Pt(II)
Day 84	M	Revision of A brief outline of thermodynamic stability of metal complexes
Day 85	T	
Day 86	W	
Day 87	TH	
Day 88	F	
Day 89	S	Revision
Day 90	M	Revision

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD****LESSON PLAN FOR THE SESSION 2022-23**

		<b>Name of the Professor: Ms. Ranjana</b> <b>ClassAndSection: B.Sc Biotech Vth sem</b> <b>Subject: Inorganic Chemistry ,BT- 507</b>
Day 1	T	
Day 2	W	
Day 3	TH	
Day 4	F	
Day 5	S	Introduction of Syllabus
Day 6	M	valence bond theory Limitations of valence bond theory
Day 7	T	
Day 8	W	
Day 9	TH	
Day 10	F	
Day 11	S	an elementary idea of crystal-field theory crystal field splitting in octahedral, tetrahedral complexes
Day 12	M	crystal field splitting square planar complexes factors affecting the crystal-field parameters
Day 13	T	
Day 14	W	
Day 15	TH	
Day 16	F	
Day 17	S	factors affecting the crystal-field parameters
Day 18	M	Assignment
Day 19	T	
Day 20	W	
Day 21	TH	
Day 22	F	
Day 23	S	A brief outline of thermodynamic stability of metal complexes factors affecting the stability of metal complexes
Day 24	M	Test Of the Limitations of valence bond theory & an elementary idea of crystal-field theory.
Day 25	T	
Day 26	W	
Day 27	TH	
Day 28	F	
Day 29	S	substitution reactions of square planar complexes substitution reactions of square planar complexes
Day 30	M	Test of the crystal field splitting in octahedral, tetrahedral complexes



Day 31	T	
Day 32	W	
Day 33	TH	
Day 34	F	
Day 35	S	substitution reactions of square planar complexes of Pt(II) Magnetic Properties of Transition Metal Complexes
Day 36	M	Assignment
Day 37	T	
Day 38	W	
Day 39	TH	
Day 40	F	
Day 41	S	Types of magnetic behavior of Transition Metal Complexes methods of determining magnetic susceptibility
Day 42	M	spin-only formula & L-S coupling correlation of $\mu_{\text{eff}}$ & $\mu_{\text{spin}}$ values
Day 43	T	
Day 44	W	orbital contribution to magnetic moments
Day 45	TH	
Day 46	F	
Day 47	S	orbital contribution to magnetic moments
Day 48	M	application of magnetic moment data for 3d-metal complexes Test of the spin-only formula & L-S coupling
Day 49	T	
Day 50	W	
Day 51	TH	
Day 52	F	
Day 53	S	Types of electronic transitions Electron Spectra of Transition Metal Complexes
Day 54	M	selection rules for d-d transitions spectroscopic ground states
Day 55	T	
Day 56	W	
Day 57	TH	
Day 58	F	
Day 59	S	Spectrochemical series Orgel-energy level diagram for d1
Day 60	M	Orgel-energy level diagram for d1 and d9 states. selection rules for d-d transitions
Day 61	T	
Day 62	W	
Day 63	TH	
Day 64	F	
Day 65	S	discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.
Day 66	M	application of magnetic moment data for 3d-metal complexes Test of Orgel-energy level diagram for d1 and d9 states
Day 67	T	

Day 68	W	
Day 69	TH	
Day 70	F	
Day 71	S	Assignment
Day 72	M	discussion of the electronic spectrum of complex ion.
Day 73	T	
Day 74	W	
Day 75	TH	
Day 76	F	
Day 77	S	
Day 78	M	Revision of substitution reactions of square planar complexes of Pt(II)
Day 79	T	
Day 80	W	
Day 81	TH	
Day 82	F	
Day 83	S	Test of the substitution reactions of square planar complexes of Pt(II)
Day 84	M	Revision of A brief outline of thermodynamic stability of metal complexes
Day 85	T	
Day 86	W	
Day 87	TH	
Day 88	F	
Day 89	S	Revision
Day 90	M	Revision

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD****LESSON PLAN FOR THE SESSION 2022-23**

<b>Name Of The Associate/Assistant Professor: Ms. Sudha Diwakar</b> <b>Class And Section: B.Sc Biotech<sup>1st</sup> sem</b> <b>Subject: Inorganic Chemistry, BT-106</b> <b>Mode Of Teaching: Offline</b> <b>Lectures Per Week: 2</b>	
Day 1	
Day 2	
Day 3	
Day 4	Valence bond theory and its limitations, directional characteristics of covalent bond & various types of hybridization
Day 5	shapes of simple inorganic molecules and ions ( BeF <sub>2</sub> , BF <sub>3</sub> , CH <sub>4</sub> , PF <sub>5</sub> , SF <sub>6</sub> , IF <sub>7</sub> )
Day 6	
Day 7	
Day 8	
Day 9	
Day 10	shapes of simple inorganic molecules and ions SO <sub>4</sub> <sup>2-</sup> , ClO <sub>4</sub> <sup>-</sup> )
Day 11	Valence shell electron pair repulsion (VSEPR) theory to NH <sub>3</sub> , H <sub>3</sub> O <sup>+</sup> , SF <sub>4</sub> , ClF <sub>3</sub> , ICl <sub>2</sub> <sup>-</sup> and H <sub>2</sub> O.
Day 12	
Day 13	
Day 14	
Day 15	
Day 16	MO theory of heteronuclear (CO and NO) diatomic molecules, , bond strength and bond energy
Day 17	percentage ionic character from dipole moment and electronegativity difference.
Day 18	
Day 19	
Day 20	
Day 21	
Day 22	Ionic structures (NaCl,CsCl, ZnS(Zinc Blende), CaF <sub>2</sub> ) radius ratio effect
Day 23	TEST ON TOPIC : COVALENT BONDING
Day 24	
Day 25	
Day 26	
Day 27	
Day 28	coordination number, limitation of radius ratio rule,lattice defects, semiconductors, lattice energy

Day 29	ASSIGNMENT
Day 30	
Day 31	
Day 32	
Day 33	
Day 34	Test of Valence bond theory and its limitations
Day 35	Born-Haber cycle, solvation energy and its relation with solubility of ionic solids & polarizing power and polarisability of ions, Fajan's rule
Day 36	
Day 37	
Day 38	
Day 39	
Day 40	<b>Inroduction of Periodic Properties</b>
Day 41	General principles of periodic table
Day 42	
Day 43	
Day 44	
Day 45	
Day 46	Hund's multiplicity rule. : Aufbau and Pauli exclusion principles
Day 47	. Electronic configurations of the elements, effective nuclear charge
Day 48	
Day 49	
Day 50	
Day 51	
Day 52	Slater's rules.electron affinity and Definition of electronegativity
Day 53	REVISION AND TEST
Day 54	
Day 55	
Day 56	
Day 57	
Day 58	methods of determination or evaluation, trends in periodic table
Day 59	Numericals on electronegativity
Day 60	
Day 61	
Day 62	
Day 63	
Day 64	Idea of de Broglie matter waves, Heisenberg uncertainty principle
Day 65	atomic orbitals, quantum numbers, radial and angular wave functions
Day 66	
Day 67	
Day 68	
Day 69	
Day 70	probability distribution curves, shapes of s, p, d orbitals
Day 71	Numerial on concept of de Broglie matter waves, Heisenberg uncertainty principle
Day 72	
Day 73	
Day 74	
Day 75	

Day 76	Electronic configuraton and slater rule numerical practice
Day 77	Mock test
Day 78	
Day 79	
Day 80	
Day 81	
Day 82	Revision
Day 83	Doubt class
Day 84	
Day 85	
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Day 88	
Day 89	
Day 90	

\*As per number of periods /week

## K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

## LESSON PLAN FOR THE SESSION 2022-23

<b>Name Of The Associate/Assistant Professor: Ms. Sudha Diwakar</b> <b>Class And Section: B.Sc Biotech I<sup>st</sup> sem</b> <b>Subject: Organic Chemistry, BT-107</b> <b>Mode Of Teaching: Offline</b> <b>Lectures Per Week: 2</b>	
Day 1	Types of bond overview Localized and delocalized chemical bond, vander waals interactions
Day 2	Resonance, hyperconjugation : conditions and applications
Day 3	-
Day 4	
Day 5	
Day 6	
Day 7	Inductive effect and Electromeric effects
Day 8	Curve notation and bond cleavage : hemolytic and heterolytic cleavage Types of reagents- electrophile and nucleophile
Day 9	
Day 10	
Day 11	
Day 12	
Day 13	Reaction intermediate: formation, structure and stability of carbocation
Day 14	Carboanion and free radical
Day 15	
Day 16	
Day 17	
Day 18	
Day 19	TEST AND ASSIGNMENT TOPIC: STRUCTURE AND BONDING
Day 20	arynes and nitrenes (formation, structure & stability).
Day 21	
Day 22	
Day 23	
Day 24	
Day 25	Assigning formal charges on intermediates and other ionic species.
Day 26	Introduction of Stereochemistry: Concept of isomerism. Types of isomerism
Day 27	
Day 28	
Day 29	
Day 30	
Day 31	enantiomers, stereogenic centre, optical activity
Day 32	properties of enantiomers, & chiral and achiral molecules with two stereogenic centres
Day 33	

Day 34	
Day 35	
Day 36	
Day 37	diastereomers, threo and erythro diastereomers,
Day 38	Resolutions of enantiomer and meso compounds,
Day 39	-
Day 40	
Day 41	
Day 42	
Day 43	inversion, retention and racemization.
Day 44	Test on topic: stereochemistry of organic chemistry
Day 45	
Day 46	
Day 47	
Day 48	
Day 49	Relative and absolute configuration, sequence rules, R & S systems of nomenclature
Day 50	Geometric isomerism & determination of configuration of geometric isomers
Day 51	
Day 52	
Day 53	
Day 54	
Day 55	E & Z system of nomenclature
Day 56	Conformational isomerism □ conformational analysis of ethane
Day 57	
Day 58	
Day 59	
Day 60	
Day 61	Conformational isomerism □ conformational analysis of n-butane & conformations of cyclohexane, axial and equatorial bonds
Day 62	Newman projection and Sawhorse formulae, Difference between configuration and conformation
Day 63	
Day 64	
Day 65	
Day 66	
Day 67	IUPAC names of alkanes and classification Isomerism
Day 68	Assignment
Day 69	
Day 70	
Day 71	
Day 72	
Day 73	Preparation of alkanes and cycloalkanes
Day 74	Chemical properties of alkanes and cycloalkanes
Day 75	
Day 76	
Day 77	

Day 78	
Day 79	Revision
Day 80	Test : Alkanes and cycloalkanes
Day 81	
Day 82	
Day 83	
Day 84	
Day 85	Strain theory of cycloalkanes
Day 86	Revision
Day 87	
Day 88	
Day 89	
Day 90	

\*As per number of periods /week

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD**

**LESSON PLAN FOR THE SESSION 2022-23**

<b>Name Of The Associate/Assistant Professor: Ms. Sudha Diwakar</b> <b>Class And Section: B.Sc Biotech 3<sup>rd</sup> sem</b> <b>Subject: Organic Chemistry, BT-306</b> <b>Lectures Per Week: 2</b>	
Day 1	Introduction of Monohydric alcohols : nomenclature, methods of formation by reduction of aldehydes
Day 2	
Day 3	
Day 4	
Day 5	Ketones, carboxylic acid and esters .Hydrogen bonding. & Acidic nature. Reactions of alcohols
Day 6	
Day 7	Dihydric alcohols — nomenclature and methods of formation. & chemical reactions of vicinal glycols.
Day 8	
Day 9	
Day 10	
Day 11	oxidative cleavage [Pb(OAc) <sub>4</sub> and HIO <sub>4</sub> ] and pinacol-pinacolone rearrangement
Day 12	
Day 13	Synthesis of epoxides & Acid and base-catalyzed ring opening of Epoxides .
Day 14	



Day 15	
Day 16	
Day 17	orientation of epoxide ring opening, reactions of Grignard and organolithium reagents with epoxides
Day 18	
Day 19	Revision and Assignment
Day 20	
Day 21	
Day 22	
Day 23	Phenols & Its Nomenclature : structure and bonding. Preparation of phenols, physical properties .
Day 24	
Day 25	acidic character of Phenol Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion & Reactions of phenols — electrophilic aromatic substitution
Day 26	
Day 27	
Day 28	
Day 29	Reactions of phenols — electrophilic aromatic substitution
Day 30	
Day 31	Reimer-Tiemann reaction, Kolbe's reaction and Schotten and Baumann reactions
Day 32	
Day 33	
Day 34	
Day 35	Introduction of Ultraviolet (UV) absorption spectroscopy & Absorption laws (Beer-Lambert law), molar absorptivity, presentation and analysis of UV spectra
Day 36	
Day 37	types of electronic transitions, effect of conjugation. Concept of chromophore and auxochrome
Day 38	
Day 39	
Day 40	
Day 41	Bathochromic, hypsochromic, hyperchromic and hypochromic shifts
Day 42	
Day 43	UV spectra of conjugated dienes and enones,
Day 44	
Day 45	
Day 46	
Day 47	Woodward- Fieser rules, calculation of $\lambda_{max}$ of simple conjugated dienes
Day 48	
Day 49	unsaturated ketones Applications of UV Spectroscopy in structure elucidation of simple organic compound
Day 50	
Day 51	
Day 52	
Day 53	Test and practice
Day 54	
Day 55	Carboxylic Acids & Acid Derivatives & Nomenclature of Carboxylic acids, structure and bonding

Day 56	
Day 57	
Day 58	
Day 59	Physical properties, acidity of carboxylic acids, effects of substituents on acid strength
Day 60	
Day 61	Preparation of carboxylic acids. Reactions of carboxylic acids
Day 62	
Day 63	
Day 64	
Day 65	Hell-Volhard-Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation
Day 66	
Day 67	Structure, nomenclature and preparation of acid chlorides, esters.
Day 68	
Day 69	
Day 70	
Day 71	nomenclature and preparation of amides and acid anhydrides
Day 72	
Day 73	Relative stability of acyl derivatives.
Day 74	
Day 75	
Day 76	
Day 77	Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution.
Day 78	
Day 79	Mechanisms of esterification and hydrolysis (acidic and basic).
Day 80	
Day 81	
Day 82	
Day 83	Test
Day 84	
Day 85	Revision
Day 86	
Day 87	
Day 88	Revision
Day 89	
Day 90	

\*As per number of periods /week

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD**

**LESSON PLAN FOR THE SESSION 2022-23**

<b>Name Of The Associate/Assistant Professor: Ms. Sudha Diwakar</b>	
<b>Class And Section: B.Sc Biotech 3<sup>rd</sup> sem</b>	
<b>Subject: Inorganic Chemistry, BT-307</b>	
<b>Lectures Per Week: 1</b>	
Day 1	
Day 2	
Day 3	
Day 4	
Day 5	Introduction of coordination compounds
Day 6	
Day 7	
Day 8	
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Day 10	
Day 11	Werners theory and its application
Day 12	
Day 13	
Day 14	
Day 15	
Day 16	
Day 17	Concept of Isomerism, types of isomerism
Day 18	
Day 19	
Day 20	
Day 21	
Day 22	Chelation and stability of the complexes
Day 23	
Day 24	
Day 25	
Day 26	
Day 27	
Day 28	IUPAC Nomenclature of coordination compounds
Day 29	
Day 30	
Day 31	
Day 32	

Day 33	
Day 34	VBT Theory and limitations
Day 35	
Day 36	
Day 37	
Day 38	
Day 39	EAN rule
Day 40	
Day 41	
Day 42	
Day 43	
Day 44	
Day 45	Test and assignment.
Day 46	
Day 47	
Day 48	
Day 49	
Day 50	General Physical properties of non aqueous solvent
Day 51	
Day 52	
Day 53	
Day 54	
Day 55	
Day 56	Chemical properties: acid and base reactions, precipitation reaction, ammonolysis
Day 57	
Day 58	
Day 59	
Day 60	
Day 61	
Day 62	Physical properties of liquid ammonia
Day 63	
Day 64	
Day 65	
Day 66	
Day 67	
Day 68	Chemical properties of non aqueous solvent liquid ammonia
Day 69	
Day 70	
Day 71	
Day 72	
Day 73	
Day 74	Liquid sulphur dioxide : physical properties
Day 75	
Day 76	
Day 77	
Day 78	
Day 79	
Day 80	Chemical properties of liquid sulphur dioxide

Day 81	
Day 82	
Day 83	
Day 84	
Day 85	Test and revision
Day 86	
Day 87	
Day 88	
Day 89	
Day 90	

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name Of The Associate/Assistant Professor: Ms. Sudha Diwakar</b> <b>Class And Section: B.Sc Biotech 5th sem</b> <b>Subject: Organic Chemistry, BT-506</b> <b>Lectures Per Week: 2</b>	
Day 1	
Day 2	
Day 3	
Day 4	Classification and nomenclature of carbohydrates
Day 5	
Day 6	Monosaccharides, mechanism of osazone formation
Day 7	
Day 8	
Day 9	
Day 10	Inter conversion of glucose and fructose, glucose to mannose
Day 11	
Day 12	Chain lengthening and chain shortening of aldoses. Configuration of monosaccharide
Day 13	-
Day 14	
Day 15	
Day 16	Erythro and threo diastereomers.
Day 17	
Day 18	Assignment and test
Day 19	
Day 20	
Day 21	
Day 22	Formation of glycosides, ethers and esters.& Determination of ring size of glucose and fructose
Day 23	
Day 24	Open chain and cyclic structure of D(+)-glucose & D(-) fructose. Mechanism of mutarotation.

Day 25	
Day 26	
Day 27	
Day 28	Introduction to disaccharides :Structure of maltose, sucrose
Day 29	
Day 30	Lactose. Structure Practice
Day 31	
Day 32	
Day 33	
Day 34	Polysaccharides : starch and cellulose
Day 35	
Day 36	Revision
Day 37	
Day 38	
Day 39	
Day 40	Organometallic compounds Grignard reagents-formation and structure
Day 41	
Day 42	Grignard reagent :chemical reactions
Day 43	
Day 44	
Day 45	
Day 46	Organolithium compounds: formation and chemical reactions
Day 47	
Day 48	Organozinc compounds: formation and chemical reactions.
Day 49	
Day 50	
Day 51	
Day 52	Test of organometallic compound
Day 53	
Day 54	Revision and reaction practice
Day 55	
Day 56	
Day 57	
Day 58	Introduction of NMR spectroscopy
Day 59	
Day 60	Principle of nuclear magnetic resonance
Day 61	
Day 62	
Day 63	
Day 64	The PMR spectrum ,number of signals and peak areas
Day 65	
Day 66	peak areas, equivalent and non equivalent protons positions of signals
Day 67	
Day 68	
Day 69	-

Day 70	Chemical shift, shielding and deshielding of protons
Day 71	
Day 72	Question practice on PMR spectrum and number of signals and peak areas
Day 73	
Day 74	
Day 75	
Day 76	Proton counting, splitting of signals and coupling constants, magnetic equivalence of protons..
Day 77	
Day 78	Discussion of PMR spectra of the molecules: ethyl bromide, n propyl bromide, isopropyl bromide.
Day 79	
Day 80	
Day 81	
Day 82	1,1-dibromoethane, 1,1,2-tribromoethane, ethanol, acetaldehyde, ethyl acetate, toluene
Day 83	
Day 84	benzaldehyde and acetophenone
Day 85	
Day 86	
Day 87	
Day 88	Simple problems on PMR spectroscopy for structure determination of organic compounds
Day 89	
Day 90	Revision

\*As per number of periods /week

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD**

**LESSON PLAN FOR THE SESSION 2022-23**

<b>Name of the professor : Indu Rani</b> <b>Class And Section: B.Sc Med 5<sup>th</sup> Sem. Sec A</b> <b>and B</b> <b>Subject: Ecology</b>	
Day 1	Introduction to syllabus.
Day 2	Ecology, definition and important terms.
Day 3	Sub division of ecology.
Day 4	Importance and scope of ecology.
Day 5	Climatic factors – Water.
Day 6	Effect of temperature.
Day 7	Effect of temperature on plants.
Day 8	Wind
Day 9	Light and its effects.
Day 10	Soil and soil profile.
Day 11	Hydrophytes introduction.
Day 12	Adaptation of hydrophytes.
Day 13	Eichornia anatomy.
Day 14	Description of Hydrilla and Typha.
Day 15	Introduction of xerophytes.
Day 16	Test
Day 17	Xerophytes and their examples.
Day 18	Description of halophytes.
Day 19	Characters of population.
Day 20	Growth curves
Day 21	Ecotypes, ecads and ecoclines.
Day 22	Introduction of community ecology.
Day 23	Characters of community.
Day 24	Methods to study community.
Day 25	Quadrat method.
Day 26	Test.
Day 27	Biotic interactions.
Day 28	Insectivorous plants.
Day 29	Ecological succession.
Day 30	Xerosere succession.
Day 31	Ecosystem introduction and component.
Day 32	Ecological pyramid.
Day 33	Biogeochemical cycles.
Day 34	Biogeochemical cycles.
Day 35	Phytogeography introduction.
Day 36	Phytogeographic regions of India.



Day 37	Vegetation of India.
Day 38	Test
Day 39	Air pollution
Day 40	Global warming.
Day 41	Ozone layer depletion.
Day 42	Green house effect.
Day 43	Biomagnification.
Day 44	Revision.
Day 45	Revision.
Day 46	
Day 47	
Day 48	
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\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Priyanka</b> <b>Class And Section: B.Sc. Non Med 5th sem</b> <b>Subject: Organic Chemistry</b>	
Day 1	Introduction to NMR, Principal , PMR spectrum
Day 2	No. Of signals , peak areas, equivalent and non equivalent protons
Day 3	Position of signals , Shielding and deshielding of protons.
Day 4	Chemical Shift , Proton Counting and Spilling of Signals
Day 5	Problems for Practice , Coupling Constant
Day 6	Magnetic Equivalence of Protons + Assignment
Day 7	Test of Unit 1
Day 8	Discussion of NMR Spectra of all the organic Compounds mentioned in Unit 2
Day 9	DO ,
Day 10	Test / Assignment
Day 11	Unit 3 - Classification and nomenclature of carbohydrates , monosaccharides
Day 12	Preparation and reactions of Glucose , Mechanism of Osazone formation
Day 13	Preparation and reactions of fructose , interconversion of glucose and fructose
Day 14	Chain lengthening and shortening of aldose , Configuration of monosaccharides
Day 15	Erythro and threo diastereomer , Conversion of glucose to mannose
Day 16	Formation of glycosides , ether and ester
Day 17	Assignment
Day 18	Determination of ring size of glucose and fructose , Mechanism of mutarotation
Day 19	Open chain and cyclic structure of D-(+) Glucose and D- (+) Fructose
Day 20	Structure of Ribose and deoxyribose and Revision
Day 21	Test
Day 22	Introduction to disaccharides , maltose , sucrose and lactose
Day 23	Introduction to polysaccharide : Starch and Cellulose
Day 24	Organomagnesium compounds : Grignard reagents formation , structure and chemical Reaction
Day 25	Organozinc Compounds : Formation and Chemical Reaction

Day 26	Organolithium Compounds : Formation and Chemical Reaction
Day 27	Test
Day 28	Revision and Doubt class
Day 29	Revision and Doubt class
Day 30	Revision
Day 31	Revision
Day 32	
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\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms priyanka natia</b>	
<b>Class And Section: BSc Med 3rd Sem</b>	
<b>Subject: Inorganic Chemistry</b>	
Day 1	Introduction to D-Block Elements,Position in the periodic table
Day 2	General characteristic and properties of d block elements
Day 3	Comparison of properties of 3d elements with 4d and 5d elements with reference to ionic radii,oxidation state.
Day 4	Comparison of magnetic and spectral properties ,stereochemistry
Day 5	Stability of various oxidation states and e.m.f
Day 6	Structures and properties of some compounds of transition elements
Day 7	Assignment -Doubt class
Day 8	Test of D Block elements
Day 9	Introduction to coordination compounds, Werner's theory of coordination compounds
Day 10	Types of ligands ,chelates,effects
Day 11	Nomenclature of coordination compounds
Day 12	Effective atomic number and Practice of nomenclature
Day 13	Assignment
Day 14	Isomerism in coordination compounds
Day 15	Geometrical and optical isomerism

Day 16	Valence bond theory of transition metal complexes
Day 17	Applications of valence bond theory
Day 18	Colours and Magnetic properties of coordination compounds
Day 19	Limitations of VBT and Doubt class
Day 20	Assignment
Day 21	Test
Day 22	Non aqueous solvents ,physical properties of solvents
Day 23	Types of solvents
Day 24	Their general properties
Day 25	Reactions in non aqueous solvents with reference to liquid ammonia and liquid sulphur dioxide
Day 26	Revision and Doubt class of Unit-1
Day 27	Revision and Doubt class of Unit-2
Day 28	Revision and Doubt class of Unit-3
Day 29	Practice of important questions
Day 30	Practice of important questions
Day 31	Revision
Day 32	
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Ms. Priyanka</b> <b>Class And Section: B.Sc. Non Med 5th sem</b> <b>Subject: Organic Chemistry</b>	
Day 1	Introduction to NMR, Principal , PMR spectrum
Day 2	No. Of signals , peak areas, equivalent and non equivalent protons
Day 3	Position of signals , Shielding and deshielding of protons.
Day 4	Chemical Shift , Proton Counting and Spilling of Signals
Day 5	Problems for Practice , Coupling Constant
Day 6	Magnetic Equivalence of Protons + Assignment
Day 7	Test of Unit 1
Day 8	Discussion of NMR Spectra of all the organic Compounds mentioned in Unit 2
Day 9	DO ,
Day 10	Test / Assignment
Day 11	Unit 3 - Classification and nomenclature of carbohydrates , monosaccharides
Day 12	Preparation and reactions of Glucose , Mechanism of Osazone formation
Day 13	Preparation and reactions of fructose , interconversion of glucose and fructose
Day 14	Chain lengthening and shortening of aldose , Configuration of monosaccharides
Day 15	Erythro and threo diastereomer , Conversion of glucose to mannose
Day 16	Formation of glycosides , ether and ester
Day 17	Assignment
Day 18	Determination of ring size of glucose and fructose , Mechanism of mutarotation
Day 19	Open chain and cyclic structure of D-(+) Glucose and D- (+) Fructose
Day 20	Structure of Ribose and deoxyribose and Revision
Day 21	Test
Day 22	Introduction to disaccharides , maltose , sucrose and lactose
Day 23	Introduction to polysaccharide : Starch and Cellulose
Day 24	Organomagnesium compounds : Grignard reagents formation , structure and chemical Reaction
Day 25	Organozinc Compounds : Formation and Chemical Reaction
Day 26	Organolithium Compounds : Formation and Chemical Reaction
Day 27	Test
Day 28	Revision and Doubt class
Day 29	Revision and Doubt class
Day 30	Revision
Day 31	Revision
Day 32	
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr. Reeti Panchal</b>	
<b>Class And Section: B.Sc. Med 3<sup>rd</sup> Semester Sec A and Sec B</b>	
<b>Subject: Mammalian physiology</b>	
Day 1	Introduction to syllabus.
Day 2	Introduction of Biomolecules
Day 3	Structure and function of Carbohydrates
Day 4	Structure and function of Lipids
Day 5	Amino Acid
Day 6	Peptide bond
Day 7	Structure of Proteins
Day 8	Revision.
Day 9	Test
Day 10	Function of Proteins
Day 11	Fibrous and globular proteins
Day 12	Nomenclature of Enzyme
Day 13	Mechanism of action of Enzyme
Day 14	Isozyme
Day 15	Zymogen
Day 16	Ribozyme
Day 17	Revision.
Day 18	Test
Day 19	Buffers
Day 20	Type of Nutrition and feeding
Day 21	Nutritional Value of Carbohydrates
Day 22	Nutritional Value of Fat
Day 23	Nutritional Value of lipids
Day 24	Nutritional Value of Minerals
Day 25	Water Soluble Vitamins
Day 26	Revision.

Day 27	Test
Day 28	Fat Soluble Vitamins
Day 29	Absorption And Assimilation of
Day 30	Plasma Membrane
Day 31	Transport Across Plasma membrane
Day 32	Passive transports
Day 33	Active transports
Day 34	Type of Muscles
Day 35	Revision.
Day 36	Test
Day 37	Ultra-Structure of Skeletal Muscles
Day 38	Biochemical and physical events during muscles contraction
Day 39	Oxygen debt
Day 40	Cori Cycle
Day 41	Structure and type of bones
Day 42	Effect of ageing on skeletal system
Day 43	Bone Disorders
Day 44	Revision.
Day 45	Test
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\*As per number of periods /week

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,  
FARIDABAD  
LESSON PLAN FOR THE  
SESSION 2022-23

<b>Name of the professor: Dr. Reeti Panchal</b>	
<b>Class And Section: B.Sc. Med 3<sup>rd</sup> Semester Sec A and Sec B</b>	
<b>Subject: Life and Diversity of Chordate-I</b>	
Day 1	Introduction to syllabus.
Day 2	Principal of Classification
Day 3	Origin of Evolutionary tree
Day 4	Role of amnion in evolution
Day 5	Classification of Chordates
Day 6	Origin and evolution of Chordate
Day 7	Salient feature of Chordate
Day 8	Systematic position of protochordate
Day 9	Distribution and ecology of Protochordate
Day 10	Morphology and affinities of Protochordate
Day 11	Circulatory system of Herdmania
Day 12	Respiratory system of Herdmania
Day 13	Nervous system of Herdmania
Day 14	Excretory and Sense organ system of Herdmania
Day 15	Digestive system of Herdmania
Day 16	Circulatory system of Amphioxus
Day 17	Respiratory system of Amphioxus
Day 18	Revision.
Day 19	Test

Day 20	Nervous system of Amphioxus
Day 21	Excretory and Sense organ system of Amphioxus
Day 22	Digestive system of Amphioxus
Day 23	General Characters and classification of Cyclostomes
Day 24	Biodiversity, economic importance and conservation of Cyclostomes
Day 25	Ecological significance of Cyclostome
Day 26	Circulatory system of Petromyzon
Day 27	Respiratory system of Petromyzon
Day 28	Nervous system of Petromyzon
Day 29	Excretory and Sense organ system of Petromyzon
Day 30	Digestive system of Petromyzon
Day 31	Revision.
Day 32	Test
Day 33	General Classification of Pisces
Day 34	Special Characters of fishes
Day 35	Scale and Fins in fishes
Day 36	Parental care in fishes
Day 37	Fish migration
Day 38	Economic importance of fishes
Day 39	Circulatory system of <i>Labeo</i>
Day 40	Respiratory system of <i>Labeo</i>
Day 41	Excretory system in <i>Labeo</i>
Day 42	Nervous System in <i>Labeo</i>
Day 43	Digestive system in <i>Labeo</i>
Day 44	Revision.
Day 45	Test

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\*As per number of periods /week

## LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:-Manisha Verma</b>	
<b>Class:-Medical 2nd year (3rd sem)</b>	
<b>Subject:- Physical Chemistry</b>	
Day 1	{Unit:-4}Nernst Distribution Law- it's Thermodynamics Derivation, Modification of Distribution Law when solute undergoes Dissociation
Day 2	When solute undergoes Association and chemical Combination, Application of Distribution Law (i) Determination of Degree of hydrolysis and Hydrolysis constant of aniline hydrochloride I.
Day 3	(ii) Determination of equilibrium constant of potassium tri-iodide complex and process of extraction.
Day 4	Assignment of Unit 4
Day 5	{Unit:-3} Equilibrium constant and Free Energy, Concept of chemical potential, Thermodynamics Derivation of law of chemical equilibrium.
Day 6	Temperature dependence of equilibrium constant; Van't Hoff reaction isochore
Day 7	Van't Hoff reaction isotherm,Le-chatelier's Principal
Day 8	Le-chatelier's Principal Application,Clapeyron Equation
Day 9	Clausius-Clapeyron Equation and it's Application
Day 10	Application and Assignment of Unit 3
Day 11	Test of Unit 4
Day 12	{Unit:-1} Defination of Thermodynamics terms; system and surrounding etc.
Day 13	Types of system,intensive and extensive properties.State and Path function and their differentials.
Day 14	Thermodynamics process, Concept of heat and work,Zeroth Law of thermodynamics.
Day 15	First law of thermodynamics, statement, definition of internal energy and Enthalpy.
Day 16	Heat capacity,Heat capacities at constant volume

Day 17	Heat capacities at constant Pressure and their relationship.
Day 18	Joule's Law, Joule-Thomson coefficient for ideal Gases
Day 19	Joule's Thomson coefficient for real gas and inversion temperature.
Day 20	Test of Unit 3
Day 21	{Unit:-2} Calculation of $w, q, dU$ and $dH$ for the ideal Gases Under isothermal
Day 22	Calculation of $w, q, dU, dH$ for adiabatic condition for reversible process.
Day 23	Temperature dependence of Enthalpy, Kirchoff's equation.
Day 24	Bond energies and Application of bond energies.
Day 25	Assignment of Unit:-1
Day 26	Revision
Day 27	Revision
Day 28	Revision
Day 29	Revision
Day 30	Test of Thermodynamics
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Dr.Nupur Srivastava</b>	
<b>Class And Section:B.Sc 3<sup>rd</sup> semester</b>	
<b>Subject:Statics (BM-233)</b>	
Day 1	Introduction of subject
Day 2	Resultant and components
Day 3	Magnitude and direction of the resultant
Day 4	Problems
Day 5	Problems
Day 6	Components of given forces in two given directions
Day 7	Problems
Day 8	Triangle law of forces
Day 9	Theorem
Day 10	Problems
Day 11	Lami, 's theorem
Day 12	Problem
Day 13	Polygon law of forces
Day 14	Theorem of resolve parts
Day 15	Problems
Day 16	Problems
Day 17	Parallel forces
Day 18	Resultant of two like and unlike forces
Day 19	Analog of lami' s theorem
Day 20	Problem
Day 21	Moment of a force about a point
Day 22	Sign of moment of a force about a point
Day 23	Problems
Day 24	Varignon 's theorem
Day 25	Problems
Day 26	Center of a number of parallel forces moment of force about a line
Day 27	Varignon's theorem on moment
Day 28	Friction kind of friction
Day 29	Law of friction
Day 30	Resultant reaction
Day 31	Angle of friction cone of friction
Day 32	Problem
Day 33	Center of gravity
Day 34	Center of gravity rod ,lamina, theorem
Day 35	CG of uniform lamina in the form of trapzium
Day 36	Problems
Day 37	CG of thin uniform rod ,parallelogram lamina,circular wire,right circular cone,of arc of a plane curve
Day 38	Problem

Day 39	Virtual work
Day 40	Principal of virtual work
Day 41	Problems
Day 42	Problems
Day 43	Forces in three dimensions
Day 44	Composition of couple
Day 45	Poinsot's central axis
Day 46	Invariants
Day 47	Problems
Day 48	Test
Day 49	Wrenches
Day 50	Resultant wrench of two given wrenches
Day 51	Theorem
Day 52	Problem
Day 53	Doubt class
Day 54	Null lines and null planes
Day 55	Theorem
Day 56	Theorem
Day 57	Problem
Day 58	Test
Day 59	Stable unstable and neutral equilibrium
Day 60	Theorem
Day 61	Problem
Day 62	Revision
Day 63	Couples
Day 64	Sign of moment of couple
Day 65	Equilibrium of couple
Day 66	Theorem
Day 67	Problem
Day 68	Problem
Day 69	Resolution of a force into a force and couple
Day 70	Problem
Day 71	Analytical conditions of equilibrium of co planer forces
Day 72	Trigonometrical theorem
Day 73	Problems
Day 74	Revision
Day 75	Revision
Day 76	Test
Day 77	Doubt class
Day 78	Revision
Day 79	Revision
Day 80	Test
Day 81	Test
Day 82	Doubt class
Day 83	Revision
Day 84	Revision
Day 85	Doubt class
Day 86	Doubt class

Day 87	Revision
Day 88	Revision
Day 89	Revision
Day 90	Resvision

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms. Sonia</b>	
<b>Class And Section: B. Sc(N.M) 3rd sem.</b>	
<b>Subject: Advanced calculus (BM-231)</b>	
Day 1	Introduction of continuous functions
Day 2	Theorems on continuous functions
Day 3	"
Day 4	Discuss questions of continuous functions
Day 5	Uniform continuity and theorems
Day 6	Doubts discussion
Day 7	Introduction of derivability of a function and chain rule
Day 8	Darboux's theorem and questions
Day 9	Rolles theorem and questions
Day 10	Lagranges mean value theorem and questions
Day 11	Doubts discussion
Day 12	Cauchy's mean value theorem and questions
Day 13	Taylor's theorem and questions
Day 14	Doubts discussion
Day 15	Test
Day 16	Introduction of indeterminate forms
Day 17	L'hospital rule and questions(0/0)
Day 18	L'hospital rule to evaluate the indeterminate form of infinity
Day 19	"
Day 20	"
Day 21	Doubts discussion
Day 22	Test
Day 23	Introduction of functions of two variables and it's limits
Day 24	Continuity of a function of two variables
Day 25	Doubts discussion
Day 26	Test
Day 27	Introduction of partial differentiation and partial diff. Of higher order
Day 28	Homogeneous functions and it's questions
Day 29	Total increment and total differentiation, composite functions
Day 30	Diff. Of implicit functions

Day 31	Taylor's theorem for functions of two variables
Day 32	Doubts discussion
Day 33	Test
Day 34	Differentiability of functions of two variables
Day 35	Young's theorem
Day 36	Schwarz's theorem
Day 37	Implicit function and question
Day 38	Doubts
Day 39	Test
Day 40	Maximum and minimum of a function of two variables
Day 41	Lagrange method of undetermined multipliers
Day 42	Doubts discussion
Day 43	"
Day 44	Test
Day 45	Description of curves in space
Day 46	Equation of a tangent line at a point on a space curve
Day 47	Oscillating plane and analytic function
Day 48	"
Day 49	Equation of tangent plane at any point of the surface
Day 50	Normal line at a point, binormal, curvature
Day 51	Torsion, screw curvature and serret-frenet formula
Day 52	"
Day 53	Doubts discussion
Day 54	"
Day 55	Test
Day 56	Osculating circle and it's results
Day 57	Osculating sphere and it's properties
Day 58	Doubts discussion
Day 59	Test
Day 60	Introduction of involutes and evolutes
Day 61	"
Day 62	Bertrand curves and it's properties
Day 63	Doubts discussion
Day 64	Introduction of surface, class of a surface
Day 65	Curvilinear equations of the curve on the surface
Day 66	Family of surfaces, envelope, edge of regression
Day 67	Doubts discussion
Day 68	Test
Day 69	Revision of ch-1,2&3
Day 70	"
Day 71	"
Day 72	Test
Day 73	Revision of ch-4&5
Day 74	"
Day 75	"
Day 76	Doubts discussion
Day 77	Test
Day 78	Revision of ch-6&7

Day 79	"
Day 80	"
Day 81	"
Day 82	Doubts discussion
Day 83	Test
Day 84	Revision of ch-8&9
Day 85	"
Day 86	"
Day 87	Test
Day 88	Revision of ch-10&11
Day 89	"
Day 90	"

K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Sonia</b>	
<b>Class And Section:B.Sc(N.M) 1st sem.</b>	
<b>Subject:Calculus (BM-112)</b>	
Day 1	Introduction of limit of a function
Day 2	Types of limits and squeeze principle
Day 3	Continuous function, kinds of discontinuity
Day 4	Derivability at an interior point
Day 5	Doubts discussion
Day 6	Introduction of successive differentiation
Day 7	Nth derivatives of functions
Day 8	"
Day 9	"
Day 10	Leibnitz's theorem and it's question
Day 11	Nth derivative at $x=0$
Day 12	Doubts discussion
Day 13	Test
Day 14	Introduction of rolles theorem and lagrange's mean value theorem
Day 15	Taylor's theorem with lagrange's forms
Day 16	Taylor's theorem with cauchy's forms of remainder

Day 17	Taylor's infinite series
Day 18	Another form of Taylor's series
Day 19	Expansion by diff. Equations
Day 20	Doubts discussion
Day 21	Test
Day 22	Introduction of asymptotes, pall. to x-axis & y-axis
Day 23	Oblique asymptotes
Day 24	Oblique asymptotes of the general algebraic curve
Day 25	Alternative methods of finding asymptotes
Day 26	Asymptotes of polar curves
Day 27	Position of the curves with respect to the asymptotes
Day 28	Doubts discussion
Day 29	Introduction of intrinsic equation, curvature of circle & in different forms of equations
Day 30	Radius of curvature for polar equations
Day 31	Radius of curvature at the origin
Day 32	Center of curvature, circle of curvature, evolute of a curve
Day 33	Doubts discussion
Day 34	Test
Day 35	Introduction of singular point & it's types
Day 36	Species of cusps
Day 37	Concavity and convexity
Day 38	Doubts discussion
Day 39	Tracing of Cartesian curves
Day 40	Parametric equations, cycloid
Day 41	Tracing of polar curves
Day 42	Doubts discussion
Day 43	Introduction of reduction formula for trigonometric functions
Day 44	Continue
Day 45	"
Day 46	"
Day 47	"
Day 48	Doubts discussion
Day 49	Test
Day 50	Introduction of rectification, fundamental theorem about rectification
Day 51	Length of the parametric curves
Day 52	Lengths of the polar curves
Day 53	Intrinsic equation of a curve
Day 54	Doubts discussion
Day 55	Introduction of quadrature
Day 56	Area between two curves
Day 57	Area formula for parametric curves
Day 58	Area formula for polar curves
Day 59	Area between two polar curves
Day 60	Doubts discussion
Day 61	Test
Day 62	Introduction of revolution, volume of a solid of revolution
Day 63	Any axis of revolution

Day 64	Volume formula for two solids
Day 65	Volume formula for polar curves
Day 66	Area of a surface of revolution
Day 67	Centroid
Day 68	Doubts discussion
Day 69	Test
Day 70	Revision of ch-1, 2&3
Day 71	"
Day 72	"
Day 73	Doubts discussion
Day 74	Test
Day 75	Revision of ch-4, 5&6
Day 76	"
Day 77	"
Day 78	Doubts discussion
Day 79	Test
Day 80	Revision of ch-7, 8&9
Day 81	"
Day 82	"
Day 83	Doubts discussion
Day 84	Test
Day 85	Revision of ch-10&11
Day 86	"
Day 87	"
Day 88	Doubts discussion
Day 89	Test
Day 90	Revision



K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor:Ms.Sonia</b>	
<b>Class And Section: B. Sc(N.M) 5th sem.</b>	
<b>Subject:Real Analysis (BM-351)</b>	
Day 1	Introduction of Riemann integral
Day 2	Theorem on lower sum and upper sum
Day 3	Questions practice
Day 4	darboux's theorem and conditions of Integrability
Day 5	Integrability of continuous functions
Day 6	Integrability of monotonic functions & Riemann sum
Day 7	Questions practice
Day 8	Properties of Riemann integral
Day 9	"
Day 10	"
Day 11	Theorems on continuity and differentiability
Day 12	Mean value theorem of integral calculus
Day 13	Doubts discussion
Day 14	Test
Day 15	Improper integral & it's types
Day 16	Convergence of 1st and 2nd kind
Day 17	Comparison test for convergence
Day 18	"
Day 19	General test for convergence
Day 20	Comparison test for convergence at infinity
Day 21	Cauchy's test, Abel's test and Dirichlet's test for convergence
Day 22	"
Day 23	Frullani's integral
Day 24	Doubts discussion
Day 25	Test
Day 26	Continuity of the integral & derivability of the integral
Day 27	Integrability of an integral of a function of parameter
Day 28	Doubts discussion
Day 29	Test
Day 30	Introduction of metric space
Day 31	Bounded sequence & function
Day 32	Semi metric space
Day 33	Doubts discussion
Day 34	Test
Day 35	Introduction of open & closed sphere
Day 36	Interior point & nhd. Of a point
Day 37	Open set

Day 38	Theorems of open set
Day 39	"
Day 40	Limit point & closed set
Day 41	Theorems of closed set
Day 42	"
Day 43	"
Day 44	Exterior point, frontier point & boundary point
Day 45	Theorems
Day 46	Doubts discussion
Day 47	Test
Day 48	Sequence and their convergence in metric space
Day 49	Theorems on convergence
Day 50	Cauchy's sequence & it's theorems
Day 51	Subsequence & it's theorems
Day 52	"
Day 53	Cantor's intersection theorem
Day 54	Baire's category theorem
Day 55	Banach's fixed point theorem
Day 56	Doubts discussion
Day 57	Test
Day 58	Continuous function & it's theorems
Day 59	"
Day 60	"
Day 61	Uniform continuity & it's theorems
Day 62	Doubts discussion
Day 63	Test
Day 64	Compact set & it's theorems
Day 65	"
Day 66	FIP & it's theorems
Day 67	"
Day 68	"
Day 69	Doubts discussion
Day 70	Introduction of connected and disconnected set
Day 71	properties of separated sets
Day 72	"
Day 73	"
Day 74	Component & it's theorems
Day 75	Doubts discussion
Day 76	Test
Day 77	Revision of ch-1
Day 78	"
Day 79	"
Day 80	Test
Day 81	Revision of ch-2&3
Day 82	"
Day 83	Test
Day 84	Revision of ch-4&5
Day 85	"

Day 86	Test
Day 87	Revision of ch-7&8
Day 88	"
Day 89	"
Day 90	Test

K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr Monika</b>	
<b>Class And Section: B.Sc. medical 1st Sem</b>	
<b>Subject: Physical Chemistry</b>	
Day 1	Unit 1 - Classification of solids
Day 2	Laws of crystallography – (i) Law of constancy of interfacial angles (ii) Law of rationality of indices (iii) Law of symmetry.
Day 3	Symmetry elements of crystals.
Day 4	Definition of unit cell & space lattice.
Day 5	Definition of unit cell & space lattice.
Day 6	Xray diffraction by crystals.
Day 7	Definition of unit cell & space lattice. Bravais lattices, crystal system. Xray diffraction by crystals. Derivation of Bragg equation.
Day 8	Determination of crystal structure of NaCl, KCl.
Day 9	Liquid crystals: Difference between solids, liquids and liquid crystals, types of liquid crystals.
Day 10	Applications of liquid crystals

Day 11	Test
Day 12	Unit 2 : Introduction of liquid crystal, Applications of liquid crystals
Day 13	Properties of liquids – surface tension
Day 14	viscosity vapour pressure
Day 15	optical rotations and their determination
Day 16	Test
Day 17	Unit 3 : Maxwell's distribution of velocities and energies (derivation excluded)
Day 18	Maxwell's distribution of velocities and energies (derivation excluded)
Day 19	average velocity and most probable velocity.
Day 20	average velocity and most probable velocity.
Day 21	Deviation of Real gases from ideal behaviour.
Day 22	Deviation of Real gases from ideal behaviour. its application in the calculation of Boyle's temperature (compression factor)
Day 23	its application in the calculation of Boyle's temperature (compression factor)
Day 24	Unit-4 Critical Phenomenon: Critical temperature, Critical pressure, critical volume and their determination.
Day 25	PV isotherms of real gases, continuity of states, the isotherms of Vander Waal's equation, relationship between critical constants and Vander Waal's constants.
Day 26	Critical compressibility factor.
Day 27	Critical compressibility factor.
Day 28	Revision
Day 29	Revision
Day 30	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: Dr Monika</b> <b>Class And Section: B.Sc. medical 3rd Sem</b> <b>Subject: Organic Chemistry</b>	
Day 1	Unit 1 - Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening
Day 2	Reactions of Grignard and organolithium reagents with epoxides
Day 3	Unit 2- Alcohol reactions of Grignard and organolithium reagents with epoxides.
Day 4	reactions of Grignard and organolithium reagents with epoxides. reactions of Grignard and organolithium reagents with epoxides
Day 5	reactions of Grignard and organolithium reagents with epoxides. reactions of Grignard and organolithium reagents with epoxides
Day 6	Hydrogen bonding. Acidic nature. Reactions of alcohols.
Day 7	Hydrogen bonding. Acidic nature. Reactions of alcohols.
Day 8	Unit-3. Phenol Nomenclature, structure and bonding.
Day 9	Preparation of phenols, physical properties and acidic character.
Day 10	Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion.
Day 11	Test

Day 12	Reactions of phenols — electrophilic aromatic substitution
Day 13	Mechanisms of Fries rearrangement, Claisen rearrangement
Day 14	Reimer-Tiemann reaction, Kolbe's reaction
Day 15	Schotten and Baumann reactions
Day 16	Test
Day 17	Unit-4: Nomenclature of Carboxylic acids, structure, and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength.
Day 18	Preparation of carboxylic acids. Reactions of carboxylic acids. Hell-Volhard. Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation
Day 19	Structure , nomenclature and preparation of acid chlorides, esters, amides and acid anhydrides
Day 20	Structure , nomenclature and preparation of amides and acid anhydrides
Day 21	Revision class
Day 22	Test
Day 23	Unit-5: Absorption laws (Beer-Lambert law), molar absorptivity, presentation and analysis of UV spectra,
Day 24	types of electronic transitions, effect of conjugation.
Day 25	Applications of UV Spectroscopy in structure elucidation of simple organic compounds.
Day 26	Test
Day 27	Revision
Day 28	Revision
Day 29	Revision
Day 30	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<p><b>Name of the professor: Dr Monika</b></p> <p><b>Class And Section: B.Sc. non medical 1st Sem</b></p> <p><b>Subject: Physical Chemistry</b></p>	
Day 1	Unit 1 - Classification of solids
Day 2	Laws of crystallography – (i) Law of constancy of interfacial angles (ii) Law of rationality of indices (iii) Law of symmetry.
Day 3	Symmetry elements of crystals.
Day 4	Definition of unit cell & space lattice.
Day 5	Definition of unit cell & space lattice.
Day 6	Xray diffraction by crystals.
Day 7	Definition of unit cell & space lattice. Bravais lattices, crystal system. Xray diffraction by crystals. Derivation of Bragg equation.
Day 8	Determination of crystal structure of NaCl, KCl.
Day 9	Liquid crystals: Difference between solids, liquids and liquid crystals,types of liquid crystals.
Day 10	Applications of liquid crystals

Day 11	Test
Day 12	Unit 2 : Introduction of liquid crystal, Applications of liquid crystals
Day 13	Properties of liquids – surface tension
Day 14	viscosity vapour pressure
Day 15	optical rotations and their determination
Day 16	Test
Day 17	Unit 3 : Maxwell's distribution of velocities and energies (derivation excluded)
Day 18	Maxwell's distribution of velocities and energies (derivation excluded)
Day 19	average velocity and most probable velocity.
Day 20	average velocity and most probable velocity.
Day 21	Deviation of Real gases from ideal behaviour.
Day 22	Deviation of Real gases from ideal behaviour. its application in the calculation of Boyle's temperature (compression factor)
Day 23	its application in the calculation of Boyle's temperature (compression factor)
Day 24	Unit-4 Critical Phenomenon: Critical temperature, Critical pressure, critical volume and their determination.
Day 25	PV isotherms of real gases, continuity of states, the isotherms of Vander Waal's equation, relationship between critical constants and Vander Waal's constants.
Day 26	Critical compressibility factor.
Day 27	Critical compressibility factor.
Day 28	Revision
Day 29	Revision
Day 30	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<p><b>Name of the professor: Dr. Monika</b></p> <p><b>Class And Section: B.Sc. non-medical 3rd Sem</b></p> <p><b>Subject: Organic Chemistry</b></p>	
Day 1	Unit 1 - Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening
Day 2	Reactions of Grignard and organolithium reagents with epoxides
Day 3	Unit 2- Alcohol reactions of Grignard and organolithium reagents with epoxides.
Day 4	reactions of Grignard and organolithium reagents with epoxides. reactions of Grignard and organolithium reagents with epoxides
Day 5	reactions of Grignard and organolithium reagents with epoxides. reactions of Grignard and organolithium reagents with epoxides
Day 6	Hydrogen bonding. Acidic nature. Reactions of alcohols.
Day 7	Hydrogen bonding. Acidic nature. Reactions of alcohols.
Day 8	Unit-3. Phenol Nomenclature, structure and bonding.
Day 9	Preparation of phenols, physical properties and acidic character.
Day 10	Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion.

Day 11	Test
Day 12	Reactions of phenols — electrophilic aromatic substitution
Day 13	Mechanisms of Fries rearrangement, Claisen rearrangement
Day 14	Reimer-Tiemann reaction, Kolbe's reaction
Day 15	Schotten and Baumann reactions
Day 16	Test
Day 17	Unit-4: Nomenclature of Carboxylic acids, structure, and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength.
Day 18	Preparation of carboxylic acids. Reactions of carboxylic acids. Hell-Volhard. Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation
Day 19	Structure, nomenclature and preparation of acid chlorides, esters, amides and acid anhydrides
Day 20	Structure, nomenclature and preparation of amides and acid anhydrides
Day 21	Revision class
Day 22	Test
Day 23	Unit-5: Absorption laws (Beer-Lambert law), molar absorptivity, presentation and analysis of UV spectra,
Day 24	types of electronic transitions, effect of conjugation.
Day 25	Applications of UV Spectroscopy in structure elucidation of simple organic compounds.
Day 26	Test
Day 27	Revision
Day 28	Revision
Day 29	Revision
Day 30	Revision
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K.L MEHTA DAYANAND COLLEGE FOR WOMEN, FARIDABAD

LESSON PLAN FOR THE SESSION 2022-23

<b>Name of the professor: DR. SHALINI</b> <b>Class And Section: B.Sc.V SEM,</b> <b>Subject: PHYSICS (QUANTUM MECHANICS)</b>	
Day 1	Failure of (Classical) E.M. Theory
Day 2	old quantum theory), Photon,
Day 3	photoelectric effect
Day 4	Einstein's photoelectric equation
Day 5	<b>NUMERICALS BASED ON</b>
Day 6	Compton effect(theory and result).
Day 7	Compton effect(theory and result).
Day 8	Inadequacy of old quantum theory
Day 9	<b>TEST I, ASSIGNMENT I</b>
Day 10	de-Broglie hypothesis
Day 11	Davisson and Germer experiment.
Day 12	G.P. Thomson experiment
Day 13	Phase velocity group velocity
Day 14	Phase velocity group velocity
Day 15	Heisenberg's uncertainty principle.
Day 16	<b>SMART CLASS BASED ON TOPICS COVER IN CLASS</b>
Day 17	Time-energy and angular momentum,
Day 18	position uncertainty Uncertainty principle from de-Broglie wave, (wave-particle duality)
Day 19	<b>TEST II,</b>
Day 20	Derivation of time dependent Schrodinger wave equation
Day 21	eigen values, eigen functions
Day 22	Wave functions and its significance.
Day 23	Normalization of wave function, concept of observable and operator.

Day 24	Solution of Schrodinger equation for harmonic oscillator ground states and excited states.
Day 25	Solution of Schrodinger equation for harmonic oscillator ground states and excited states.
Day 26	Solution of Schrodinger equation for harmonic oscillator ground states and excited states.
Day 27	<b>TEST III, ASSIGNMENT II</b>
Day 28	<b>REVISION</b>
Day 29	Free particle in one dimensional box (solution of schrodinger wave equation, eigen function)
Day 30	Free particle in one dimensional box (solution of schrodinger wave equation, eigen function)
Day 31	eigen values, quantization of energy and momentum, nodes and antinodes, zero point energy).  i) One-dimensional potential barrie $E > V_0$ (Reflection and Transmission coefficient).
Day 32	i) One-dimensional potential barrie $E > V_0$ (Reflection and Transmission coefficient).
Day 33	i) One-dimensional potential barrie $E > V_0$ (Reflection and Transmission coefficient).
Day 34	ii) One-dimensional potential barrier, $E > V_0$ (Reflection Coefficient, penetration of leakage coefficient, penetration depth).
Day 35	ii) One-dimensional potential barrier, $E > V_0$ (Reflection Coefficient, penetration of leakage coefficient, penetration depth).
Day 36	ii) One-dimensional potential barrier, $E > V_0$ (Reflection Coefficient, penetration of leakage coefficient, penetration depth).
Day 37	<b>TEST IV</b>
Day 38	<b>ASSIGNMENT III</b>
Day 39	<b>TEST V</b>
Day 40	<b>REVISION</b>
Day 41	<b>REVISION</b>
Day 42	<b>REVISION</b>
Day 43	<b>REVISION</b>
Day 44	<b>REVISION</b>
Day 45	<b>REVISION</b>

**K.L MEHTA DAYANAND COLLEGE FOR WOMEN,FARIDABAD**

**LESSON PLAN FOR THE SESSION 2022-23**

<b>Name of the professor:DR. SHALINI</b>	
<b>Class And Section: B.Sc.1<sup>st</sup></b>	
<b>SEM Subject: mechanics</b>	
<b>( paper-1)</b>	
Day 1	
Day 2	
Day 3	Mechanics of single and system of particles
Day 4	conservation of laws of linear momentum, angular momentum for single particle
Day 5	conservation of laws of energy for single particle
Day 6	conservation of laws of linear momentum, angular momentum for system of particles
Day 7	conservation of laws of energy for system of particles
Day 8	conservation of laws of energy for system of particles
Day 9	conservation of laws of energy for system of particles, Centre of mass and equation of motion
Day 10	Centre of mass and equation of motion, numerical problem
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