RPS Degree College, Balana (Mahendergarh)



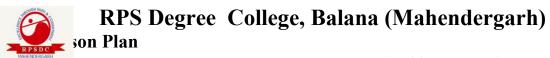
Class and Section: B.Sc Med. 1st Subject: Diversity of Microbes

Lecture	versity of Microbes Topics
	•
1	Bacteria Structure, nutrition,
2	Bacteria Structure, nutrition,
3	Reproduction
4	Reproduction
5	Economic importance, Cyanobacteria ; life history of Nostoc. Algae: General characters, Organisation of thalus.
6	Economic importance, Cyanobacteria ; life history of Nostoc. Algae: General characters, Organisation of thalus.
7	Algae: Classification and Economic importance.
8	Algae: Classification and Economic importance.
9	Important features and life history of Volvox and Oedogonium.
10	Important features and life history of Volvox and Oedogonium.
11	Important features and Life history of Vaucheria,
12	Important features and Life history of Vaucheria,
13	Ectocarpus
14	Polysiphonia (Rhodophyceae).
15	
16	Viruses:General account of Viruses.
17	Viruses:General account of Viruses.
18	Structure of TMV
19	Structure of TMV
20	Bacteriophages.
21	Bacteriophages.
22	Fungi: characters,
23	Fungi: characters,
24	Fungi: classification.
25	Fungi: classification.
26	Economic importance of Fungi.

27	Economic importance of Fungi.
28	General account of Lichens
29	General account of Elenens
30	Important features and life history of Phytopthora(Mastigomycotina)
31	Important features and life history of Phytopthora(Mastigomycotina)
32	Important features and life history of Mucor.
33	Important features and life history of Mucor.
34	Penicillium(Ascomycotina)
35	Penicillium(Ascomycotina)
36	Puccinia, Agaricus(Basidiomycotina)
37	Puccinia, Agaricus(Basidiomycotina)
38	Colletotrichum(Deuteromycotina)
39	Colletotrichum(Deuteromycotina)
40	Revision

RPS Degree College, Balana (Mahendergarh) son Plan 2020-21(Odd Semester) Class and Section: B.Sc Med. 1st Sem **Subject: Cell biology 1.2 Topics** Lecture Introduction of Cell Biology 1 Cell Wall Structure Primary Cell wall 2 3 Secondary Cell Wall structure 4 Difference between Primary and Secondary cell wall 5 Functions of Cell wall 6 Cell Membrane Structure 7 Models of Plasma Membrane 8 Fluid Mosaic Model 9 PM function and its Modification 10 Endoplasmic Reticulum Introduction ER Structure 11 ER Functions 12 Golgi Body Introduction 13 14 Golgi body Structure and function 15 Peroxisomes Str.and function 16 Lysosomes Str. 17 Lysosomes type and function 18 Vacuole Str.and function 19 Nucleus Introduction 20 Nuclear Envelope 21 Nuclear pore 22 Chromatin Str.and type 23 Nucleolus 24 Functions of Nucleus 25 Mitochondria Introduction 26 Mitochondria Str. and function 27 Chloroplast Introduction 28 chloroplast Str.and function 29 Chromosome Morphology 30 Chromosome Ultrastructure - Kinetochore 31 Centromere and Telomere Cell Cycle Introduction 32 33 Cell cycle Types 34 Mitosis stages -Prophase and Metaphase 35 Anaphase and telophase

36	Meiosis Stages -Meiosis -1-Prophase-1	
37	Metaphase-1 and Anaphase-1	
38	Telophase -1	
39	Meiosis -2 stages	
40	Difference between Mitosis and Meiosis	
41	Significance of Mitosis and Meiosis	
42	Mutation And its Types	
43	Chromosomal aberrations -Structural -Deletion	
44	Duplication	
45	Translocation	
46	Inversion	
47	Numerical Aberration -Aneuploidy	
48	Polyploidy	
49	Sex chromosome	
50	X chromosome str.	
51	Y Chromosome str.	
52	Sex Determination in plants	
53	Sex determination in Drosophila	
54	Revision Unit 1st Half	
55	Revision Unit 1st complete	
56	Revision Unit 2nd Half	
57	Revision Unit 2nd complete	
58	Revision Unit 3rd complete	
59	Revision Unit 4th complete	
60	Complete Syllabus Revision	



2020-21(Odd Semester)

Class and Section: B.Sc.Medical 1st Semester Subject: Inorganic Chemistry

Lecture	Topics
1	Idea of de Broglie matter wave
2	Heisenberg uncertainty principle
3	Atomic orbitals
4	Quantum numbers
5	Radial and angular wave functions
6	Probability distribution curves
7	shapes of s, p, d orbitals
8	shapes of s, p, d orbitals
9	General principles of periodic table
10	Aufbau principles
11	Pauli exclusion principles
12	Hund's multiplicity rule
13	Electronic configurations of the elements
14	effective nuclear charge
15	Slater's rules
16	Atomic and ionic radii- definition
17	Atomic and ionic radii- methods of determination or evaluation
18	Atomic and ionic radii- trends in periodic table (in s &p block elements)
19	Ionization energy definition
20	Ionization energy methods of determination or evaluation
21	Ionization energy trends in periodic table (in s &p block elements)
22	Electron affinity definition
23	Electron affinity methods of determination or evaluation
24	Electron affinity trends in periodic table (in s &p block elements)
25	Electronegativity definition
26	Electronegativity methods of determination or evaluation
27	Electronegativity trends in periodic table (in s &p block elements)
28	Valence bond theory and its limitations
29	Valence bond theory and its limitations
30	directional characteristics of covalent bond,
31	Various types of hybridization
32	Shapes of simple inorganic molecules
33	Shapes of simple inorganic molecules
34	Valence shell electron pair repulsion (VSEPR)5 theory
35	Valence shell electron pair repulsion (VSEPR)5 theory
36	MO theory of heteronuclear (CO and NO) diatomic.molecules

37 MO theory of heteronuclear (CO and NO) diatomic.molec 38 Bond strength 39 Bond energy	ules
D one swenger	
39 Bond energy	
83	
40 Percentage ionic character from dipole moment	
Percentage ionic character from dipole moment	
42 Ionic structures (NaCl,CsCl, ZnS(Zinc Blende), CaF2)	
Ionic structures (NaCl,CsCl, ZnS(Zinc Blende), CaF2)	
Ionic structures (NaCl,CsCl, ZnS(Zinc Blende), CaF2)	
45 Radius ratio effect	
46 Radius ratio effect	
47 Coordination number	
48 Coordination number	
49 Limitation of radius ratio rule	
50 Limitation of radius ratio rule	
51 Limitation of radius ratio rule	
52 Lattice defects	
53 Semiconductors	
54 Lattice energy	
55 Born-Haber cycle	
56 Solvation ene rgy	
57 Solvation ene rgy& its relation with solubility of ionic soli	ds
58 Polarizing power	
59 Polarisability of ions	
60 Fajan's rule	



RPS Degree College, Balana (Mahendergarh) Lesson Plan

2020-21(Odd Semester)

Class and Section: B.Sc. 1st Sem Medical Subject: Physical Chemistry(Code: CH102)

Lecture	Topics
1	Introduction to Course, Scheme of Exam &
	Learning Objectives Discussion to check the previous knowledge of students
2	
3	Introduction to Gaseous state and Maxwell's distribution
4	Maxwell's distribution of velocities and energies
5	Root mean, average and most probable velocities
6	Root mean, average and most probable velocities
7	Collision diameter and collision number
8	Collision frequency and mean free path
9	Concept of ideal and real gases
10	Deviation of real gases from ideal behaviour
11	Derivation of Van der Waal's equation of state
12	Boyle's temperature and compression factor
13	Application of Van der Waal's equation to calculate Boyle's temperature
14	Explanation of behaviour of real gases using Van der Waal's equation
15	Explanation of behaviour of real gases using Van der Waal's equation
16	Critical temperature and pressure
17	Critical temperature and pressure
18	Determination of Critical temperature and pressure
19	Critical volume and its determination
20	PV isotherms of real gases
21	PV isotherms of real gases
22	Continuity of states
23	Continuity of states
24	Isotherms of Van der Waal's equation
25	Relationship between critical constants and van der waal's constants
26	Relationship between critical constants and van der waal's constants
27	Practice problems related to calculation of critical constants
28	Critical compressibility factor and Law of corresponding states
29	Liquifaction of gases
30	Liquifaction of gases
31	Introduction to liquid state
32	Structure of liquids
33	Structure of liquids
34	Properties of liquids
35	Surface tension

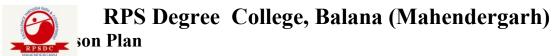
36	Surface tension and its determination
37	Viscosity
38	
	Determination of Viscosity
39	Vapour pressure
40	Vapour pressure
41	Determination of vapour pressure
42	Optical rotation
43	Method for determining optical rotation
44	Introduction to solid state
45	Classification of solids
46	Law of constancy of interfacial angles and rationality of indices
47	Law of symmetry
48	Symmetry elements of crystals
49	Unit cell and space lattice
50	Bravais lattice
51	Crystal systems
52	Crystal systems
53	X ray diffraction of crystals
54	X ray diffraction of crystals
55	Derivation of Bragg equation
56	Practice problems related to Bragg equation
57	Determination of crystal structure of NaCl, KCl
58	Liquid crystals
59	Difference between solids, liquids and liquid crystals
60	Applications of liquid crystals

RPS Degree College, Balana (Mahendergarh) Lesson Plan

Class: B.Sc. Medical 1st Sem Subject: Organic Chemistry

	: Organic Chemistry
Lecture	Topics
1	Introduction of Syllabus
2	Localized and delocalised chemical bond
3	Van der Waals Interaction
4	Resonance concept condition, energy
5	Resonance effect and its application
6	Hyperconjugation
7	Inductive effect and its application
8	Electromeric effect and its comparison
9	Concept of isomerism and types
10	Optical isomerism, elements of Symmetry
11	Optical activity and Enantiomerism
12	Diastereomers and its types, meso compounds
13	Resolution of enantiomers
14	Inversion, retention and racemization
15	Relative and absolute configuration, sequence Rule
16	R and S system of nomenclature
17	Geometric isomerism and its configuration
18	E and Zsystem of nomenclature
19	Conformational isomerism
20	Conformational analysis of ethane and n-butane
21	Conformations of Cyclohexane
22	Axial and equatorial bonds
23	Newman projection concept
24	Sawhorse projections concept
25	Difference between Configuration and conformation
26	Different types of arrow notation
27	Half headed and double headed arrow
28	Drwaing electron movement with arrows
29	Homolytic and heterolytic bond cleavage
30	Electrophile reagent
31	Nucleophilic Reagent
32	Types of Organic Reaction
33	Types of Organic Reaction
34	Energy Consideration
35	Energy Consideration
36	Carbocation - formation and Structure
37	Stablity of Carbocation
38	Carboanion - Formation, structure and stablity
39	Free radicals - formation, structure and stability

40	Carbenes - formation, structure and stability
41	Arynes - Formation, structure and stability
42	Nitrenes - Formation, structure and stability
43	Assigning formal charges on intermediate and ionic species
44	Alkanes - Nomenclature
45	Classification of carbon atom in alkanes
46	Isomerism in alkanes
47	Physical properties of alkanes
48	Methods of formation of alkanes
49	Methods of formation of alkanes
50	Nomenclature of cycloalkanes
51	Synthesis of cycloalkanes and its derivatives
52	Photochemical (2 + 2) Cycloaddition reactions
53	Dehalogenation and pyrolysis reaction
54	Baeyer's strain theory and its limitations
55	Baeyer's strain theory and its limitations
56	Theory of strainless rings
57	Revision
58	Revision
59	Revision
60	Revision



2020-21(Odd Semester)

Class and Section: B.Sc. Medical 1st Sem

Subject: ENGLISH
Name of the Faculty: DEEPIKA

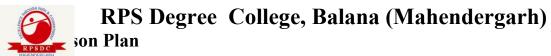
Lecture	Topics
1	Introduction to Syllabus, Scheme of Exam &
2	Learning Objectives/Outcomes Test to Check the Learning Level of the Students
3	
	Introduction to language and literature
4	One third of 1st poem W. SHAKESPEARE
5	Two third of the 1st poem
6	Poem complete
7	Doubt class regarding 1st poem
8	2nd poem one third J. DONNE
9	2nd poem two third
10	2nd poem complete
11	Doubt class regarding 2nd poem
12	3rd poem one third J.MILTON
13	3rd poem two third
14	3rd poem complete
15	Doubt class
16	fourth poem one third A POPE
17	fourth poem two third
18	fourth poem complete
19	Doubt class
20	5th poem one third W. BLAKE
21	5th two third
22	5th poem complete
23	Doubt class
24	6th poem one third W. Wordsworth
25	6th poem two third
26	6th poem complete
27	Doubt class
28	7th poem one third H.Vaughan
29	7th poem two third
30	7th poem Complete
31	doubt class
32	8th poem one third L.Tennyson
33	8th poem two third
34	8th poem complete

35	Doubt class
36	Introduction to Grammar concepts
37	Translation structure (Present)
38	Translation structure (Past)
39	Translation structure (Future)
40	Translation structure (outside tense)
41	Paragraph writing
42	Paragraph Important
43	common errors 1
44	common errors 2
45	common errors 3
46	common errors 4
47	common errors 5
48	common errors 6
49	common errors 7
50	Important phrasal verbs
51	Important prepositions
52	Revision
53	Revision
54	Revision
55	Revision
56	Revision
57	Revision
58	Revision
59	Revision
60	Revision

son Plan 2020-21(Odd Semester) Class and Section: B.Sc Medical 1st Sem **Subject: Life and Diversity from Protozoa to Helminthes (1.1) Topics** Lecture Introduction to Syllabus, Scheme of Exam & 1 Learning Objectives/Outcomes Test to Check the Learning Level of the Students 2 3 Introduction to Animal World 4 Characters of living things 5 Biodiversity and Classification 6 Kingdom Protista 7 Basis of classification of kingdom Animal 8 Classification of kingdom Animal 9 General Characters of Protozoans 10 Classification of Protozoans Protozoan Biodiversity 11 Economic Importance of Protozoa 12 Introduction to Plasmodium 13 14 Life cycle of Plasmodium- In Human 15 Life cycle of Plasmodium-In Mosquito 16 Graphical representation of life history of Plasmodium 17 Types of Malaria 18 Control of Malaria 19 Parasitism and Kind of Parasite 20 Entamoeba 21 Trypanosoma 22 Leishmania 23 Giardia 24 General Characters of Phylum Porifera 25 Classification of sponges 26 Biodiversity in Porifera 27 Economic Importance of Sponges 28 Introduction to Scypha(sycon) 29 Morphology of sycon 30 Physiology of sycon 31 Reproduction in sycon 32 Canal system in Sponges Skeleton system in Sponges 33 Introduction to Colenterata 34 35 General Characters of Phylum Colenterata

RPS Degree College, Balana (Mahendergarh)

36	Classification of Phylum Coelenterata	
37	Coelenterates Biodiversity	
38	Economic Importance of Coelenterata	
39	Introduction to Obelia	
40	Morphology of the Obelia Colony	
41	Histology of Obelia Colony	
42	General Physiology of Obelia Colony	
43	Medusa	
44	Life History of Obelia	
45	Difference between obelia and medusa	
46	Coral, structure and Types	
47	Coral Reef	
48	Polymorphism in Colenterata	
49	General Characters of Phylum Platyhelminths	
50	Classification of Phylum Platyhelminths	
51	Biodiversity and Classification of Platyhelminths	
52	General Characters of Phylum Nematoda	
53	Introduction to Fasiola Hepatica	
54	Digestive system in Fasiola Hepatica	
55	Excretory and Nervous system in Fasiola Hepatica	
56	Reproduction in Fasiola Hepatica	
57	Schistosoma (Blood Fluke)	
58	Ancylostoma (Hookworm)	
59	Trichinella and Wuchereia	
60	Oxyuris (The Pin Worm)	



2020-21(Odd Semester)

Class and Section: B.Sc Medical 1st Sem. Subject:Cell Biology -I (Zoology)

Lecture	Topics		
1	Introduction to Syllabus, Scheme of Exam &		
	Learning Objectives/Outcomes		
2	Plasma Membrane- Introductiom		
3	Unit Membrane Model, Fluid Mosaic model		
4	Transport- Passive transport		
5	Active Transport		
6	Endocytosis		
7	Exocytosis		
8	E.R- Structure, Types		
9	Role of ER in Protein synthesis and transportation in cell		
10	Golgi Complex- Structure		
11	Enzymes in Golgi Complex, Role of Golgi - complex in cell		
12	Ribosome: Structure, Types		
13	Biogenesis of Ribosome		
14	Role of Ribosome in animal cell		
15	Lysosome: Structure, Polymorphism		
16	Enzymes in lysosome		
17	Function of lysosome		
18	Mitochondria: Mitochondia DNA		
19	Mitochondria as semiautonomous organelle		
20	Biogenesis of Mitochondria, Mitochondrial Enzymes		
21	Role of mitochondria in animal cell		
22	Cytoskelton- Microtubules		
23	Microfilament		
24	Centriole and Basal body		
25	Cilia and Flagella		
26	Ultrstructure of Nucleus _ Nucleus, Nuclear Membrane		
27	Nuclear lamina, nucleolus		
28	Function of Nucleus		
29	Chromosome, Nucleosome, role of histone		
30	Euchromatin, Heterochromatin		
31	Lambrush Chromosome		
32	Polytene chromosome		
33	Cell Reproduction: Introduction		
34	Mitosis		
35	Meiosis		

36	Cancer- Introduction	
37	Types of Cancer	
38	Cause, symptoms and Treatment of cancer	
39	Introduction of Immunology	
40	An elementary idea of cellular basis of immunity	