

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st / IIIrd / Vth Semester) PG (IIIrd Semester)

Name of the Paper:- Life and Diversity from Protozoa to Porifera & Cell Biology – I

Class: B.sc. Medical (zoology) 1st semester

Name of the Teachers (Section wise): BHAWNA MALIK

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		Introduction of Invertebrates
		Introduction of Invertebrates
		SUNDAY - 10.10.2021
2	October (11-16)	
		General characters of Invertebrates
		HOLIDAY - 15.10.2021 - DUSSEHRA
		General characters of Invertebrates
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Outline classification of animals
		Protozoa: General characters
		Protozoa: classification up to order level
SUNDAY - 24.10.2021		
4	October (25 -30)	
		Protozoa: classification up to order level
		Protozoa: classification up to order level
		Protozoa: Biodiversity
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	
		Protozoa: Economic importance
		Protozoa: Economic importance
SUNDAY - 14.11.2021		
6	November (15 -20)	
		Revision
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	
		Type study of Plasmodium
		Type study of Plasmodium
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Entamoeba</i>
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Entamoeba</i>
SUNDAY - 5.12.2021		
9	December (6-11)	
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Trypanosoma</i>
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Trypanosoma</i>
SUNDAY - 12.12.2021		
10	December (13-18)	
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Leishmania</i>
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Leishmania</i>
SUNDAY - 19.12.2021		

11	December (20-25)	
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Giardia</i>
		Parasitic protozoans: Life history, mode of infection and pathogenicity of <i>Giardia</i>
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	
		Revision Test
	Porifera: General characters and classification up to order level	
January (1)	Porifera: Biodiversity and Economic importance	
SUNDAY -02.01.2022		
13	January (3-8)	
		class activity
		Type study – Sycon
		Type study – Sycon
SUNDAY - 09.01.2022		
14	January (10-15)	
		Type study – Sycon
		Type study – Sycon
		Canal system in sponges
SUNDAY - 16.01.2022		
15	January (17-22)	
		Revision
		Revision Test
		Ultrastructure of different cell organelles of animal cell
SUNDAY - 23.01.2022		
16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Plasma Membrane: Fluid mosaic model, various modes of transport across the membrane
		Plasma Membrane: mechanism of active and passive transport, endocytosis and exocytosis
		Endoplasmic reticulum (ER) : types, role of ER in protein synthesis and transportation in animal cell.
SUNDAY - 30.01.2022		

17	January(31)	
	February(1-4)	
		Golgi complex: Structure, Associated enzymes and role of golgi-complex in animal cell.
		class activity
		Ribosomes:Types, biogenesis and role in protein synthesis
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	
		Lysosomes: Structure, enzyme and their role
		Mitochondria
		Cytoskeleton: Microtubules, microfilaments, centriole and basal body
SUNDAY - 13.02.2022		
19	February (14-19)	
		Cilia and Flagella
		class activity
		Revision Test
SUNDAY - 20.02.2022		
20	February (21-22)	

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Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st / IIIrd / Vth Semester) PG (IIIrd Semester)

Name of the Paper:- Life and Diversity from Coelentrata to Helminths & Cell Biology – II Class: B.sc 1st Zoology

Name of the Teachers (Section wise): Monika

WEEK	DATE	TOPICS
1	October (6 - 9)	Coelentrata - General characters
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		Biodiversity of Coelentrata
SUNDAY - 10.10.2021		
2	October (11-16)	Economic importance of Coelentrata
		Type study of Obelia
		Type study of Obelia
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	Type study of Obelia
		Type study of Obelia
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY - 24.10.2021		
4	October (25 -30)	Type study of Obelia
		Type study of Obelia
		Type study of Obelia
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Type study of Obelia
		Type study of Obelia
		Type study of Obelia
SUNDAY - 14.11.2021		
6	November (15 -20)	Metagenesis of Obelia colony
		Polyp V/S medusa
		Coral and coral reefs
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	polymorphism in siphonophores
		Helminths - General characters
		Biodiversity of helminths
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Economic importance of helminths
		Type study - fasciola hepatica
		Type study - fasciola hepatica
SUNDAY - 5.12.2021		
9	December (6-11)	Type study - fasciola hepatica
		Type study - fasciola hepatica
		Type study - fasciola hepatica
SUNDAY - 12.12.2021		

10	December (13-18)	Type study - fasciola hepatica
		Helminths parasites
		Helminths parasites
SUNDAY - 19.12.2021		
11	December (20-25)	Oxyuris
		Nuclear membrane
		Nucleolus
Holiday -25.12.2021 - Christmas		
SUNDAY - 26.12.2021		
12	December (27-31)	Euchromatin and Heterochromatin chromosome
		Nucleosome
		Lambrush chromosome
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	Polytene chromosome
		Mitosis
		Mitosis
SUNDAY - 09.01.2022		

14	January (10-15)	Mitosis
		Meiosis
		Meiosis
SUNDAY - 16.01.2022		
15	January (17-22)	Meiosis
		Meiosis
		Meiosis
SUNDAY - 23.01.2022		
16	January (24-29)	Cause of cancer
		Cause of cancer
		Holiday - 26.01.2022 - Republic day
SUNDAY - 30.01.2022		
17	January(31)	Cause of cancer
	February(1-4)	Cause of cancer
		Cause of cancer
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	cellular basis of immunity
		cellular basis of immunity
		cellular basis of immunity
SUNDAY - 13.02.2022		
19	February (14-19)	cellular basis of immunity
		cellular basis of immunity
		cellular basis of immunity
SUNDAY - 20.02.2022		
20	February (21-22)	

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Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st Semester)

Name of the Paper:- Electricity, Magnetism and Electromagnetic theory Class: B.Sc I

Name of the Teachers (Section wise): Garima Tarika

WEEK	DATE	TOPICS
1	October (6 - 9)	Unit I: Vector background and Electric field : Gradient of a scalar and
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		its physical significance
SUNDAY - 10.10.2021		
2	October (11-16)	Line, Surface integrals of a vector
		and their physical significance.
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	Volume integrals of a vector and their physical significance
		Numerical
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY - 24.10.2021		
4	October (25 -30)	Flux of a vector field,
		Divergence of a vector and
		their physical significance
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Gauss's divergence theorem
		Numerical
		Discussion
SUNDAY - 14.11.2021		
6	November (15 -20)	Stoke's theorem
		Derivation of electric field E from potential as gradient
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	Derivation of Laplace and Poisson equations
		Numericals
		Numericals
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Electric flux, Gauss's Law
		Numericals
		Mechanical force of charged surface
SUNDAY - 5.12.2021		

9	December (6-11)	Energy per unit volume
		Unit 2: Magnetism : Magnetic induction, Magnetic flux
		Numericals
SUNDAY - 12.12.2021		
10	December (13-18)	Solenoidal nature of vector field of induction
		properties of B (i) , (ii)
		Numericals
SUNDAY - 19.12.2021		
11	December (20-25)	Electronic theory of dia and paramagnetism
		Derivation
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	Domain theory of ferromagnetism (Langevin's theory)
		Cycle of magnetization- hysteresis loop
		Numericals
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	Conditional Test
		Unit 3: Electromagnetism : Maxwell equations and their derivations
		Derivation (Alternate Method)
SUNDAY - 09.01.2022		

14	January (10-15)	Derivation Continued
		Displacement current
		Numericals
SUNDAY - 16.01.2022		
15	January (17-22)	Vector and Scalar potentials,
		numericals
		Boundary conditions at interface between two different media
SUNDAY - 23.01.2022		
16	January (24-29)	Propagation of electromagnetic wave (Basic idea, no derivation),
		Poynting vector and Poynting theorem.
		Holiday - 26.01.2022 - Republic day
SUNDAY - 30.01.2022		
17	January(31)	Unit 4: A. C. Analysis : A.C. circuit analysis using complex
	February(1-4)	variable with (a) Capacitance and Resistance (b) Resistance and Inductance
		(c) Capacitance and Inductance (LC)
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Capacitance, Inductance and Resistance (LCR),
		Series and parallel resonance circuit, Quality factor (sharpness of resonance)
SUNDAY - 13.02.2022		
19	February (14-19)	Revision
		Revision
		Revision
SUNDAY - 20.02.2022		
20	February (21-22)	Revision
		Revision

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Weekly Lesson Plan UG (1st Semester)

Name of the Paper:- CLASSICAL MECHANICS

Class: [B.SC I](#)

Name of the Teachers (Section wise): DEEPA SAINI

WEEK	DATE	TOPICS
1	October (6 - 9)	UNIT-I (BASIC CONCEPTS OF CLASSICAL MECHANICS) INTRODUCTION OF CLASSICAL MECHANICS , MECHANICS OF A SINGLE PARTICLE
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		TYPES OF FORCES, SOME IMPORTANT TERMS USED IN CLASSICAL MECHANICS AND THEIR BRIEF DESCRIPTION
SUNDAY - 10.10.2021		
2	October (11-16)	NEWTON'S SECOND LAW OF MOTION, WORK DONE IN TERMS OF KINETIC ENERGY AND POTENTIAL ENERGY
		CONSERVATION THEOREM OF LINEAR MOMENTUM FOR A SINGLE PARTICLE
		CONSERVATION THEOREM OF ANGULAR MOMENTUM FOR A SINGLE PARTICLE
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	CONSERVATION THEOREM OF ENERGY FOR A SINGLE PARTICLE
		MECHANICS OF A SYSTEM OF PARTICLES
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY - 24.10.2021		
4	October (25 -30)	CONSERVATION THEOREM OF LINEAR AND ANGULAR MOMENTUM FOR A SYSTEM OF PARTICLES
		CONSERVATION THEOREM OF ANGULAR MOMENTUM OF A SYSTEM OF PARTICLES IN TERMS OF C.M
		CONSERVATION THEOREM OF ENERGY FOR A SYSTEM OF 'N' PARTICLES
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	KINETIC ENERGY IN TERM OF CENTRE OF MASS
		NUMERICALS AND CONCEPTUAL QUESTIONS
		CONSTRAINTS AND THEIR CLASSIFICATION,EXAMPLES OF CONSTRAINTS
SUNDAY - 14.11.2021		
6	November (15 -20)	DEGREE OF FREEDOM,DISCUSSION OF PROBLEMS BASED ON UNIT-I ASSIGNMENT -1
		DEGREES OF FREEDOM, GENERALIZED CO-ORDINATES,
		TRANSFORMATION EQUATIONS ,GENERALIZED DISPLACEMENT
		GENERALIZED VELOCITY,GENERALIZED ACCELERATION
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	GENERALIZED MOMENTUM
		GENERALIZED FORCE , GENERALIZED POTENTIAL
		ADVANTAGES OF GENERALIZED COORDINATE
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	CONFIGURATION SPACE , HAMILTON'S VARIATIONAL PRINCIPLE
		DERVATION OF LAGRANGE'S EQUATIONS OF MOTION FROM HAMILTON 'S PRINCIPLE
		LINEAR HARMONIC OSCILLATOR, ATWOOD'S MACHINE
SUNDAY - 5.12.2021		
9	December (6-11)	SIMPLE PENDULUM ,PROBLEM DISCUSSION
		DISCUSSION OF PROBLEMS BASED ON UNIT-2,CONCEPTUAL QUESTIONS
		CLASS TEST UNIT 2
SUNDAY - 12.12.2021		

10	December (13-18)	UNIT -III (THEORY OF RELATIVITY) FRAME OF REFERENCE , LIMITATION OF NEWTON'S LAW OF MOTION
		INERTIAL FRAME OF REFERENCE, NON-INERTIAL FRAME OF REFERENCE
		GALILEAN TRANSFORMATION , GALILEAN INVARIANCE (MEASUREMENT OF LENGTH & VELOCITY)
SUNDAY - 19.12.2021		
11	December (20-25)	CONDITIONAL TEST
		GALILEAN INVARIANCE (MEASUREMENT OF ACCELERATION) CONSERVATIONS LAWS ACCORDING TO GALILEAN'S TRANSFORMATIONS (CONSERVATION OF MOMENTUM)
		TRANSFORMATION EQUATION FOR A FRAME OF REFERENCE INCLINED TO AN INERTIAL FRAME
Holiday -25.12.2021 - Christmas		
SUNDAY - 26.12.2021		
12	December (27-31)	TRANSFORMATION EQUATION FOR ROTATING FRAME OF REFERENCE , NON INERTIAL FRAME OF REFERENCE
		THE ACCELERATED FRAME OF REFERENCE AND ROTATING FRAME OF REFERENCE
		ASSIGNMENT -2
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	EFFECT OF CENTRIFUGAL FORCE ON THE VALUE OF g due to Gravity on Earth
		CORIOLIS FORCE EFFECT ON FREELY FALLING PARTICLE
		MICHELSON-MORLEY EXPERIMENT CONCEPT OF EINSTEIN'S RELATIVITY
SUNDAY - 09.01.2022		

14	January (10-15)	PROBLEM BASED ON UNIT 3
		UNIT IV: (APPLICATION OF THEORY OF RELATIVITY) SPECIAL THEORY OF RELATIVITY
		LORENTZ COORDINATE AND PHYSICAL SIGNIFICANCE OF LORENTZ INVARIANCE
SUNDAY - 16.01.2022		
15	January (17-22)	LENGTH CONTRACTION , TIME DILATION
		TWIN PARADOX, VELOCITY ADDITION THEOREM
		VELOCITY ADDITION THEOREM OF RELATIVISTIC ADDITION OF VELOCITIES
SUNDAY - 23.01.2022		
16	January (24-29)	VARIATION OF MASS WITH VELOCITY ,MASS ENERGY EQUIVALENCE
		EINSTEIN'S MASS ENERGY RELATIONSHIP
		Holiday - 26.01.2022 - Republic day
SUNDAY - 30.01.2022		
17	January(31)	CLASS TEST UNIT 1
	February(1-4)	TRANSFORMATION OF RELATIVISTIC MOMENTUM AND ENERGY
		RELATION BETWEEN RELATIVISTIC MOMENTUM AND ENERGY
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	NUMERICALS, CONCEPT BASED QUESTIONS
		MASS, VELOCITY ,MOMENTUM AND ENERGY OF ZERO REST MASS
		REVISION
SUNDAY - 13.02.2022		

19	February (14-19)	REVISION
		REVISION
		REVISION
		SUNDAY - 20.02.2022
20	February (21-22)	REVISION
		REVISION

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(Odd Semester)

Weekly Lesson Plan UG (Ist)

Name of the Paper:- Solid Geometry

Class: B.Sc.- I

Name of the Teachers (Section wise): SOURAV

WEEK	DATE	TOPICS
1	October (6 - 9)	ORIENTATION PROGRAMME
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME
		ORIENTATION PROGRAMME
SUNDAY - 10.10.2021		
2	October (11-16)	HAWAN CEREMONY
		INTRODUCTION TO BASIC FACTS
		CONIC SECTIONS
		GENERAL EQUATION OF SECOND DEGREE
		HOLIDAY - 15.10.2021 - DUSSEHRA
		TO FIND THE LENGTH AND EQUATION OF THE AREAS OF A CENTRAL CONIC
SUNDAY - 17.10.2021		
3	October (18-23)	THE PARABOLA GENERAL
		PROBLEM DISCUSSION
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		CH-2 TRACING OF A CENTRAL CONIC- ELLIPSE
		TRACING OF A HYPERBOLA
		TRACING OF A PARABOLA
SUNDAY - 24.10.2021		
4	October (25 -30)	PROBLEM DISCUSSION
		TEST OF CH-1,2
		CH-3 TANGENT AND NORMAL TO A CONIC
		THEOREMS ON TANGENT AND NORMAL TO A CONIC
		POLE AND POLAR
		NUMERICALS ON POLE AND POLAR OF CONIC
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	CH-4 SYSTEM OF CONICS
		RELATED ARTICLES AND NUMERICAL OF SYSTEM OF CONICS
		PROBLEM DISCUSSION OF CH-3,4
		TEST OF CH-3,4
		CH-5 CONFOCAL CONICS
		RELATED NUMERICAL
SUNDAY - 14.11.2021		
6	November (15 -20)	POLAR COORDINATES
		STRAIGHT LINE IN POLAR FORM
		CIRCLE IN POLAR FORM
		CONIC SECTION IN POLAR FORM
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		RELATED NUMERICALS
SUNDAY - 21.11.2021		
7	November (22-27)	PROBLEM DISCUSSION OF CH-5,6
		TEST OF CH-5,6
		SPHERE-CENTRE,RADIUS AND VARIOUS FORM OF SPHERE
		SPHERE PASSING THROUGH FOUR POINTS
		PLANE SECTION OF A SPHERE
		RELATED NUMERICALS
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	SPHERE PASSING THROUGH A GIVEN CIRCLE
		INTERSECTION OF TWO SPHERES
		SPHERE AND A LINE
		RELATED NUMERICALS
		TANGENT TO A SPHERE
		DIAMETRAL AND POLAR PLANE
SUNDAY - 5.12.2021		

9	December (6-11)	INTERSECTION OF TWO SPHERES
		RADICAL PLANE
		EQUATION OF CONE WITH GIVEN VERTEX AND CONIC AS BASE
		EQUATION OF RIGHT CIRCULAR CONE
		EQUATION OF ENVELOPING CONE
		CONE REPRESENTATION BY GENERAL EQUATION OF SECOND DEGREE
SUNDAY - 12.12.2021		
10	December (13-18)	RELATED NUMERICALS
		EQUATION OF A QUADRIC CONE THROUGH AXES
		CONDITION OF CONE TO HAVE THREE PERPENDICULAR GENERATORS
		EQUATION OF A TANGENT PLANE
		CONDITION OF TANGENCY
		EQUATION OF RECIPROCAL CONE
SUNDAY - 19.12.2021		
11	December (20-25)	PROBLEM DISCUSSION OF CH-7,8
		TEST OF CH-7,8
		EQUATION OF CYLINDER WHOSE AXIS AND GUIDING CURVE ARE GIVEN
		EQUATION OF RIGHT CIRCULAR CYLINDER IN STANDARD FORM
		EQUATION OF RIGHT CIRCULAR CYLINDER IN GENERAL FORM
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	EQUATION OF THE ENVELOPING CYLINDER
		CONICOID
		EQUATION OF TANGENT PLANE
		CONDITION OF TANGENCY
		THE EQUATION OF DIRECTOR SPHERE
	January (1)	NUMBER OF NORMALS FROM A GIVEN POINT
SUNDAY -02.01.2022		
13	January (3-8)	CUBIC CURVE THROUGH FEET OF SIX NORMALS
		QUADRIC CONE THROUGH SIX CONCURRENT NORMALS
		POLAR PLANE OF A POINT
		RECIPROCAL PROPERTY
		POLE OF A GIVEN SPHERE
		CONDITIONS FOR TWO PLANE TO BE CONJUGATE
SUNDAY - 09.01.2022		

14	January (10-15)	POLAR OF A PLANE W.R.T. CONICOID
		CONDITIONS OF TWO LINES TO BE CONJUGATE
		EQUATION OF ENVELOPING CONE FROM THE POINT
		ENVELOPING CYLINDER OF CONICOID
		DIAMETRAL PLANE PROPERTY
		PLANE SECTION WITH GIVEN CENTRE
SUNDAY - 16.01.2022		
15	January (17-22)	INTERSECTION OF A LINE AND PARABOLOID
		CONDITION OF TANGENCY OF A LINE FOR PARABOLOID
		LOUCS OF POINTS OF INTERSECTION
		NORMALS TO AN ELLIPTIC PARABOLOID
		NUMBER OF NORMALS FROM A GIVEN POINT
		PROBLEM DISCUSSION OF CH-9,10
SUNDAY - 23.01.2022		
16	January (24-29)	TEST OF CH-9,10
		CENTRAL PLANE SECTION OF CENTRAL CONICOID
		Holiday - 26.01.2022 - Republic day
		NON-CENTRAL PLANE SECTION OF CENTRAL CONICOID
		CIRCULAR SECTIONS
		PLANE SECTIONS OF THE PARABOLOID
SUNDAY - 30.01.2022		
17	January(31)	GENERATING LINES OF HYPERBOLIC OF ONE SHEET
	February(1-4)	GENERATING LINES OF HYPERBOLIC PARABOLOID
		PROBLEM DISCUSSION OF CH-11,12
		TEST DISCUSSION OF CH-11,12
		CONFOCAL CONICOIDS
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	CONFOCAL THROUGH A GIVEN POINT
		CONFOCAL THROUGH A GIVEN LINE
		CONFOCAL TOUCHING A GIVEN LINE
		ELLIPTIC COORDINATES
		PARAMETERS OF TWO CONFOCAL
		LOCUS OF POLES OF PLANES
SUNDAY - 13.02.2022		

19	February (14-19)	NORMAL TO THE THREE CONFOCAL
		TETRAHEDRON IS SELF POLAR, AXES OF ENVELOPING CONE
		INTERSECTION OF LINE AND CONICOID
		EQUATION OF CHORD BISECTED AT POINT
		DIAMETRAL PLANE CONJUGATE TO GIVEN DIRECTION
		PRINCIPAL DIRECTION AND PLANE, REDUCTION OF SECOND DEGREE EQ.
		SUNDAY - 20.02.2022
20	February (21-22)	PROBLEM DISCUSSION OF CH-13,14
		TEST OF CH-13,14

**I.B. (PG) COLLEGE, PANIPAT
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Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st)

Name of the Paper:- Calculus

Class: B.sc. I

Name of the Teachers (Section wise): Ms. Kanak Sharma

WEEK	DATE	TOPICS
1	October (6 - 9)	ORIENTATION
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION
		ORIENTATION
SUNDAY - 10.10.2021		
2	October (11-16)	HAWAN
		Derivative of a Function, Basics of Differentiation and Integration
		Successive Differentiation
		Questions based on Successive Differentiation
		HOLIDAY - 15.10.2021 - DUSSEHRA
Questions based on Successive Differentiation		
SUNDAY - 17.10.2021		
3	October (18-23)	Differentiation of Parametric Functions
		Differentiation of Parametric Functions
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Differentiation using Partial Fractions
		Differentiation using Partial Fractions
Differentiation using Partial Fractions		
SUNDAY - 24.10.2021		
4	October (25 -30)	Leibnitz's Theorem
		Questions based on Leibnitz's Theorem
		Questions based on Leibnitz's Theorem
		Questions based on Leibnitz's Theorem
		Applications of Leibnitz's Theorem
Applications of Leibnitz's Theorem		
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Problem Discussion
		Test
		Taylor's Theorem with Lagrange's form of remainder Questions based on Taylor's Theorem
		Questions based on Taylor's Theorem
		Taylor's Theorem with Cauchy's form of remainder Questions based on Taylor's Theorem with Cauchy's form of remainder
SUNDAY - 14.11.2021		
6	November (15 -20)	Infinite Series
		Infinite Series
		Infinite Series
		Infinite Series
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	Applications of Taylor's Series
		Applications of Taylor's Series
		Applications of Taylor's Series
		Problem Discussion
		Expansion by Differential Equations
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Problem Discussion
		Test
		Asymptotes
		Oblique Asymptotes and Questions based on it
		Oblique Asymptotes and Questions based on it
SUNDAY - 5.12.2021		
9	December (6-11)	Oblique Asymptotes of Algebraic Curve
		Oblique Asymptotes of Algebraic Curve
		Oblique Asymptotes of Algebraic Curve
		Intersection of Curve and its Asymptotes
		Intersection of Curve and its Asymptotes
SUNDAY - 12.12.2021		
10	December (13-18)	Polar Asymptotes
		Polar Asymptotes
		Polar Asymptotes
		Polar Asymptotes
		Problem Discussion
SUNDAY - 19.12.2021		

11	December (20-25)	Curvature
		Articles related to Curvature
		Questions based on Curvature
		Questions based on Curvature
		Questions based on Curvature
SUNDAY - 26.12.2021		
12	December (27-31)	Radius of Curvature in Polar Form
		Radius of Curvature in Polar Form
		Curvature at Origin
		Centre of Curvature and Evolute of a Curve
	January (1)	Centre of Curvature and Evolute of a Curve
SUNDAY -02.01.2022		
13	January (3-8)	Curve Tracing
		Curve Tracing
		Curve Tracing
		Curve Tracing Parametric Equations
		Curve Tracing Parametric Equations
SUNDAY - 09.01.2022		
14	January (10-15)	Tracing of Polar Curves
		Problem Discussion
		Test
		Reduction Formulae
		Articles related to Reduction Formulae
SUNDAY - 16.01.2022		
15	January (17-22)	Questions based on Reduction Formulae
		Questions based on Reduction Formulae
		Questions based on Reduction Formulae
		Questions based on Reduction Formulae
		Problem Discussion
SUNDAY - 23.01.2022		

16	January (24-29)	Rectification, Fundamental Theorem about Rectification
		Rectification, Fundamental Theorem about Rectification
		Holiday - 26.01.2022 - Republic day
		Rectification, Fundamental Theorem about Rectification
		Rectification, Fundamental Theorem about Rectification
		Problem Discussion
SUNDAY - 30.01.2022		
17	January(31)	Test
	February(1-4)	Length of Parametric Curves
		Length of Parametric Curves
		Length of Parametric Curves
		Length of Polar Curves
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Length of Polar Curves
		Length of Polar Curves
		Intrinsic Equation of a Curve
		Quadrature
		Quadrature
		Questions based on Quadrature
SUNDAY - 13.02.2022		
19	February (14-19)	PROBLEM DISCUSSION
		TEST
		REVISION
		REVISION
		REVISION
		REVISION
SUNDAY - 20.02.2022		
20	February (21-22)	REVISION
		TEST

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st)

Name of the Paper:- Algebra

Class: B.A. /B.SC. I

Name of the Teachers (Section wise): Dr. Arpana Garg

WEEK	DATE	TOPICS
1	October (6 - 9)	Orientation
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		Orientation
		Orientation
SUNDAY - 10.10.2021		
2	October (11-16)	HAWAN
		Matrices and Elementary Properties
		Matrices and Elementary Properties
		Matrices and Elementary Properties
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Matrices and Elementary Properties
SUNDAY - 17.10.2021		
3	October (18-23)	Matrices and Elementary Properties
		Matrices and Elementary Properties
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Matrices and Elementary Properties
		Matrices and Elementary Properties
		Matrices and Elementary Properties
SUNDAY - 24.10.2021		
4	October (25 -30)	Rank of a Matrix
		Row Echelon Form
		Row Echelon Form
		Row reduced echelon form
		Row reduced echelon form
		Theorems
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Normal Form
		Normal Form
		Theorems based on Normal form
		Inverse of a Matrix
		Inverse of a Matrix
Elementary matrices		
SUNDAY - 14.11.2021		
6	November (15 -20)	Theorems based on Elementary matrices
		Theorems based on Elementary matrices
		Examples based on Elementary matrices
		Linearly independent and dependant vectors
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
Linearly independent and dependant vectors		
SUNDAY - 21.11.2021		
7	November (22-27)	Linearly independent and dependant vectors
		Orthogonal Matrix
		Unitary Matrix
		Unitary Matrix
		Characteristic roots of a matrix
Characteristic roots of a matrix		
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Characterstic Vectors of a Matrix
		Characterstic Vectors of a Matrix
		Theroems Based on characteristic roots of a matrix
		Theroems Based on characteristic roots of a matrix
		Theroems Based on characteristic roots of a matrix
Cayley hamilton theorem		
SUNDAY - 5.12.2021		
9	December (6-11)	questions based on cayley Hamilton Theorem
		Minimal Polynomial of a matrix
		Minimal Polynomial of a matrix
		Problem Discusson
		Test
Application of matrices to solve system of equations		
SUNDAY - 12.12.2021		

10	December (13-18)	Application of matrices to solve system of equations
		Application of matrices to solve system of equations
		Non-Homogeneous system of equations
		Non-Homogeneous system of equations
		Homogeneous system of equations
SUNDAY - 19.12.2021		
11	December (20-25)	Problem Discussion
		General properties of polynomial and equations
		General properties of polynomial and equations
		Synthetic Division
		Numericals based on polynomials
Holiday -25.12.2021 - Christmas		
SUNDAY - 26.12.2021		
12	December (27-31)	Fundamental theorem of algebra
		Theorems based on Polynomials
		Theorems based on Polynomials
		Numericals based on polynomials
	January (1)	Relation between Roots and The Coefficients of an equation
SUNDAY -02.01.2022		
13	January (3-8)	Common roots and Repeated Roots
		Problem Discussion
		Test
		Transformation of equation
		Diminishing roots by a given number
SUNDAY - 09.01.2022		
14	January (10-15)	Equation with binomial coefficients
		Problem Discussion
		Transform an equation whose roots are algebraic functions of the roots of the given equation
		Transform an equation whose roots are algebraic functions of the roots of the given equation
		Transform an equation whose roots are algebraic functions of the roots of the given equation
SUNDAY - 16.01.2022		

15	January (17-22)	Cardan's method to solve cubic equation
		Cardan's method to solve cubic equation
		Numericals
		Descartes solution of the biquadratic
		Descartes solution of the biquadratic
		Ferraris method
SUNDAY - 23.01.2022		
16	January (24-29)	Ferraris method
		Numericals
		Holiday - 26.01.2022 - Republic day
		Problem discussion
		Test
		Descartes rule of sign
SUNDAY - 30.01.2022		
17	January(31)	Descartes rule of sign
	February(1-4)	Descartes rule of sign
		Problem Discussion
		Test
		Linear Transformation
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Bilinear Form
		Canonical Form of a Bilinear form
		Factorizable Bilinear form
		Numericals
		Quadratic Form
		Numericals
SUNDAY - 13.02.2022		
19	February (14-19)	Linear transformation of a Quadratic form
		Examples
		Factorable Quadratic Form
		Numericals
		Problem Discussion
		Test
SUNDAY - 20.02.2022		
20	February (21-22)	Revision
		Revision

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Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG (1st Semester)

Name of the Paper: English

Class: B.sc 1st year (Medical)

Name of the Teachers (Section wise): Ms kajal

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		introduction about syllabus
		introduction about. paper pattern
		SUNDAY - 10.10.2021
2	October (11-16)	
		HOLIDAY - 15.10.2021 - DUSSEHRA
		sonnet 'let me not to the marriage of true mind ' explanation and critical
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		question answer discussion test
SUNDAY - 24.10.2021		
4	October (25 -30)	
		explanation of the poem ' the retreat
		question answer discussion
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	
		explanation crossing the bar poem
		critical of the poem
SUNDAY - 14.11.2021		
6	November (15 -20)	
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		discussion about common errors in English
SUNDAY - 21.11.2021		
7	November (22-27)	
		assignment
		conditional
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	
		sonnet know then Thyself
		critical analysis of the poem
SUNDAY - 5.12.2021		
9	December (6-11)	
		explanation ' crossing the bar poem
		paragraph writing
SUNDAY - 12.12.2021		

10	December (13-18)	
		test of paragraph writing
		test of sonnet ' let me not to the marriage of true minds '
SUNDAY - 19.12.2021		
11	December (20-25)	
		revision
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	
		explanation of the poem Three years she grew in a sun and shower
	January (1)	critical analysis
SUNDAY -02.01.2022		
13	January (3-8)	
		England in 1819 poem
		critical analysis
SUNDAY - 09.01.2022		
14	January (10-15)	
		explanation of the sonnet the little black boy
		critical analysis the sonnet the little black boy
SUNDAY - 16.01.2022		
15	January (17-22)	
		test
		test
SUNDAY - 23.01.2022		

16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		paragraph writing
		errors editing
SUNDAY - 30.01.2022		
17	January(31)	
	February(1-4)	
		translation test
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	
		explanation death be not proud sonnet
		critical analysis
SUNDAY - 13.02.2022		
19	February (14-19)	
		revision
		revision
SUNDAY - 20.02.2022		
20	February (21-22)	revision
		revision

**I.B. (PG) COLLEGE, PANIPAT
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Teaching Term : (6.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG (Ist / Illrd / Vth Semester)

Name of the Paper:- PC (4-6) Days

Class: BSC - I

Name of the Teachers (Section wise): Prof. Neetu Manocha

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME & LIBRARY VISIT
		ORIENTATION PROGRAMME & LIBRARY VISIT
		SUNDAY - 10.10.2021
2	October (11-16)	
		Basics of Windows, Windows History
		HOLIDAY - 15.10.2021 - DUSSEHRA
		CONTD..
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Basics components of Windows, icons & type of icons
		CONTD..
		CONTD..
SUNDAY 24.10.2021		
1	October (25 -30)	
		Taskbar, Activating Windows
		CONTD...
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

2	November (8 -13)	
		Revision
		Desktop,Title Bar,Running Applications
		Windows Explorer,Managing Files & Folder
SUNDAY - 14.11.2021		
3	November (15 -20)	
		Windows Explorer,Managing Files & Folder
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		Configuring System Devices
SUNDAY - 21.11.2021		
4	November (22-27)	
		Control Panel ,Windows Accessories
		Revision
		Query Solve
SUNDAY - 28.11.2021		
5	November (29-30) December (1-4)	
		Inroduction to Office Automation
		Creating And Editing Documents,Formatting Documents
		Revision
SUNDAY - 5.12.2021		

6	December (6-11)	
		Auto Text ,Autocorrect,Spelling & Grammer Tools
		Document Dictionary,Page Formatting
		Revision
SUNDAY - 12.12.2021		
7	December (13-18)	
		Bookmark,Advance Features of MS-Word
		Mail Merge
		Revision
SUNDAY - 19.12.2021		
8	December (20-25)	
		Macro,Tables
		Assignment I
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
9	December (27-31) January (1)	
		Linking & Embedding Objects
		File Management
		Printing,Styles
SUNDAY -02.01.2022		
10	January (3-8)	
		Introduction to MS-Excel,Creating & Editing Worksheet
		Formatting & Essential Operations
		Formulas, Function
Holiday - 9.1.2022 - Guru Gobind Singh Jayanti		

11	January (10-15)	
		Charts
		Pivot Table & Pivot Chart
		Conditional Test
SUNDAY - 16.01.2022		
12	January (17-22)	
		Linking & Consolidation
		Database Management using Excel-Sorting,
		Filtering
SUNDAY - 23.01.2022		
13	January(24-29)	
		Holiday - 26.01.2022 - Republic day
		Table,Validation
		Goal Seek,Scenario
		Inroduction of Power Point
14		
	January(31)	Class Test
	February(1-5)	Animation And Sound,Inserting Animated Pictures or Accessing through Objects
		Revision
		Holiday - 5.02.2022 - Vasant Panchami
SUNDAY - 6.02.2022		
15	February (7-12)	
		Inserting Recorded Sound Effects or in Built Sound Effects
		Creating & Manipulating & Enhancing Slides
		Organisational Charts
SUNDAY - 13.02.2022		
16	February (14-19)	
		Word Art, Layering at Objects
		Assignment II
		Excel Charts
SUNDAY - 20.02.2022		
17	February (21-22)	Query Solve
		Query Solve

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Teaching Term : (25.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (Ist / IIIrd / Vth Semester) PG (IIIrd Semester)

Name of the Paper:- COMPUTER FUNDAMENTAL (1-3 days) Class: BSC - I

Name of the Teachers : PROF. NEETU MANOCHA

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME & LIBRARY VISIT
		ORIENTATION PROGRAMME & LIBRARY VISIT
SUNDAY - 10.10.2021		
2	October (11-16)	HAWAN & INAUGURATION SESSION
		TIME-TABLE DISPLAY & DISCUSSION
		Discussion of Syllabus
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	Definition & Functional components of computer
		CONTD..
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY 24.10.2021		
4	October (25 -30)	Characteristics & Limitation of computer
		CONTD..
		Classification of Computer
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Classification of Computer
		Classification of Computer
		Applications of Computer
SUNDAY - 14.11.2021		
6	November (15 -20)	Memory: Concept of primary & secondary memory
		RAM, ROM, types of ROM,
		Cache memory, CPU Registers
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	flash memory, Secondary storage devices: magnetic tape magnetic disk, CD, DVD.
		Magnetic disk, CD, DVD.
		hardware and software
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	I/O Devices
		I/O Devices
		I/O Devices
SUNDAY - 5.12.2021		

9	December (6-11)	Assignment I
		Motherboard, Ports.
		Overview of operating system: Definition, functions of operating system
SUNDAY - 12.12.2021		
10	December (13-18)	Concept of Multiprogramming, Multitasking
		Concept of Multithreading, Multiprocessing
		Concept of Time-sharing, Real time,
SUNDAY - 19.12.2021		
11	December (20-25)	Single-user & Multi-user Operating System, examples of various Operating Systems.
		Problem Discussion
		Conditional test
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31) January (1)	Planning the Computer Program: Concept of problem solving, Problem definition,
		Program design, Debugging, Types of errors in programming
		Documentation, Techniques of Problem Solving: Flowcharting
SUNDAY -02.01.2022		
13	January (3-8)	Algorithms, Pseudo Code,
		Decision table, Structured programming concepts
		Programming methodologies: Top-down and Bottomup programming
Holiday - 9.1.2022 - Guru Gobind Singh Jayanti		

14	January (10-15)	Assignment II
		Searching : Linear Binary Search
		Sorting : Selection sort
SUNDAY - 16.01.2022		
15	January (17-22)	Bubble Sort
		Insertion Sort
		Query Solve
SUNDAY - 23.01.2022		
16	January(24-29)	Merging
		Revision
		Holiday - 26.01.2022 - Republic day
		SUNDAY - 30.01.2022
17		Computer Languages: Analogy with natural language, machine language
		Query Solve
	January(31)	Revision
	February(1-5)	
		Holiday - 5.02.2022 - Vasant Panchami
SUNDAY - 6.02.2022		
18	February (7-12)	Assembly language, High-level language
		Language Translators, Characteristics of a good programming language.
		Revision
SUNDAY - 13.02.2022		
19	February (14-19)	Revision
		Revision
		Revision
SUNDAY - 20.02.2022		
20	February (21-22)	Query Solve
		Query Solve

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Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st / 3rd / 5th Semester) PG (3rd Semester)

Name of the Paper:- Physical Chemistry Class: B.Sc (1 year) A

Name of the Teachers (Section wise): Dr. Vikram Kumar

WEEK	DATE	TOPICS
1	October (6 - 9)	Kinetic Molecular Theory of Gases , Maxwell's distribution of velocities and energies (derivation excluded)
SUNDAY - 10.10.2021		
2	October (11-16)	Calculation of root mean square velocity, average velocity and most probable velocity. Collision diameter, collision number, collision frequency
SUNDAY - 17.10.2021		
3	October (18-23)	Mean free path (Derivations excluded), Deviation of Real gases from ideal behavior
SUNDAY - 24.10.2021		
4	October (25 -30)	Derivation of Van der Waal's Equation of State, its application in the calculation of Boyle's temperature (compression factor)
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Critical tempera ture, critical pressure, critical volume and their determination.
SUNDAY - 14.11.2021		
6	November (15 -20)	PV isotherms of real gases, continuity of states, the isotherms of Van der Waal's equation
SUNDAY - 21.11.2021		
7	November (22-27)	Relationship between critical constants and Van der Waal's constants.
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Critical compressibility factor. The Law of corresponding states.
SUNDAY - 5.12.2021		

9	December (6-11)	Classification of solids, Law of constancy of interfacial angles
SUNDAY - 12.12.2021		
10	December (13-18)	Law of rational indices, Miller indices
SUNDAY - 19.12.2021		
11	December (20-25)	Elementary ideas of symmetry and symmetry elements
SUNDAY - 26.12.2021		
12	December (27-31) January (1)	Seven crystal systems and fourteen Bravais lattices; X-ray diffraction,
SUNDAY -02.01.2022		
13	January (3-8)	Bragg's law, a simple account of Laue method
SUNDAY - 09.01.2022		

14	January (10-15)	Rotating crystal method
SUNDAY - 16.01.2022		
15	January (17-22)	Powder pattern method.
SUNDAY - 23.01.2022		
16	January (24-29)	Structure of liquids, Properties of liquids – surface tension Refractive index,
SUNDAY - 30.01.2022		
17	January(31)	viscosity,Vapour pressure
	February(1-4)	
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Optical rotation
SUNDAY - 13.02.2022		

19	February (14-19)	Revision
SUNDAY - 20.02.2022		
20	February (21-22)	Revision

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (1st / IIIrd / Vth Semester) (1st Semester)

Name of the Paper:- Inorganic Chemistry Class: B.Sc I (A)

Name of the Teachers (Section wise): Prof. Era Garg

WEEK	DATE	TOPICS
1	October (6 - 9)	Idea of de Broglie matter waves, Heisenberg's uncertainty principle
SUNDAY - 10.10.2021		
2	October (11-16)	Atomic orbitals, Quantum numbers
SUNDAY - 17.10.2021		
3	October (18-23)	Radial and angular wave functions, Normal and orthogonal wave functions, Significance of Ψ and Ψ^2
SUNDAY - 24.10.2021		
4	October (25 -30)	Probability distribution curves, shapes of s, p, d, f orbitals, Aufbau and Pauli exclusion principles, Hund's multiplicity rules
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Electronic configuration of elements, Effective nuclear charge, Slater's rules
SUNDAY - 14.11.2021		
6	November (15 -20)	Classification of periodic table into s, p, d, f blocks, atomic and ionic radii, ionisation energy, electron affinity
SUNDAY - 21.11.2021		
7	November (22-27)	Electronegativity definition, methods of determination or evaluation, trend in periodic table (in s and p-block elements)
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Pauling , Mulliken, Allred Rachow and Mulliken Jaffe's electronegativity scale, Sanderson's electron density ratio
SUNDAY - 5.12.2021		

9	December (6-11)	Valence bond theory (Heitler-London and Pauling approach) and its limitation, directional characteristics of covalent bond
SUNDAY - 12.12.2021		
10	December (13-18)	Various type of hybridisation and shapes of simple inorganic molecules and ions (BeF ₂ , BF ₃ , CH ₄ , PF ₅ , SF ₆ , IF ₇ , SO ₄ ²⁻ , ClO ₄ ⁻ , NO ₃ ⁻)
SUNDAY - 19.12.2021		
11	December (20-25)	Valence shell electron pair repulsion (VSEPR) theory to NH ₃ , H ₃ O ⁺ , SF ₄ , ClF ₃ , H ₂ O, SnCl ₂ , ClO ₃ ⁻ and ICl ₂ ⁻ .
SUNDAY - 26.12.2021		
12	December (27-31) January (1)	Molecular orbital theory of homonuclear (N ₂ , O ₂) heteronuclear (CO and NO) diatomic molecules and ions
SUNDAY -02.01.2022		
13	January (3-8)	Bond energy, bond angle, bond length and dipole moments
SUNDAY - 09.01.2022		

14	January (10-15)	Percentage ionic character from dipole moment and electronegativity difference.
SUNDAY - 16.01.2022		
15	January (17-22)	Ionic structures (NaCl, CsCl, ZnS (Zinc blende), CaF ₂) size effects
SUNDAY - 23.01.2022		
16	January (24-29)	Radius ratio rule and its limitations, Madelung constant, Stoichiometric and Non stoichiometric defects in crystals
SUNDAY - 30.01.2022		
17	January(31)	Lattice energy (mathematical derivation excluded)
	February(1-4)	
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Born-Haber cycle, Solvation energy and its relation with solubility of Ionic solids,
SUNDAY - 13.02.2022		

19	February (14-19)	Polarizing power and Polarisability of ions, Fajan's rule.
SUNDAY - 20.02.2022		
20	February (21-22)	REVISION, CLASS TEST

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (Ist / IIIrd / Vth Semester) (Ist Semester)

Name of the Paper:- Organic Chemistry Class: B.Sc I (A)

Name of the Teachers (Section wise): Prof. Ranjana Sharma

WEEK	DATE	TOPICS
1	October (6 - 9)	Localized and delocalized chemical bond
SUNDAY - 10.10.2021		
2	October (11-16)	Vander Waal's interactions, resonance: conditions, resonance effect and Its applications, hyperconjugation
SUNDAY - 17.10.2021		
3	October (18-23)	Inductive effect, Electromeric effect & their comparison Concept of isomerism.
SUNDAY - 24.10.2021		
4	October (25 -30)	Types of isomerism. Optical isomerism, elements of symmetry, molecular chirality, enantiomers, stereogenic centre
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers
SUNDAY - 14.11.2021		
6	November (15 -20)	Threo and erythro diastereomers, meso compounds, resolution of enantiomers, inversion, retention and racemization.
SUNDAY - 21.11.2021		
7	November (22-27)	Relative and absolute configuration, sequence rules, R & S systems of nomenclature. Geometric isomerism ,determination of configuration of geometric isomers.
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	E & Z system of nomenclature, Conformational isomerism ,conformational analysis of ethane and n-butane, conformations of cyclohexane
SUNDAY - 5.12.2021		

9	December (6-11)	Axial and equatorial bonds. Newman projection and Sawhorse formulae, Difference between configuration and conformation
SUNDAY - 12.12.2021		
10	December (13-18)	Curved arrow notation, drawing electron movements with arrows, half-headed and double-headed arrows, homolytic and heterolytic bond breaking
SUNDAY - 19.12.2021		
11	December (20-25)	Types of reagents – electrophiles and nucleophiles. Types of organic reactions.
SUNDAY - 26.12.2021		
12	December (27-31)	Reactive intermediates ,carbocations, carbanions, free radicals, carbenes,(formation, structure & stability).
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	IUPAC nomenclature of branched and unbranched alkanes, classification of carbon atoms in alkanes
SUNDAY - 09.01.2022		

14	January (10-15)	Isomerism in alkanes, sources, methods of formation: Wurtz reaction, Kolbe reaction
SUNDAY - 16.01.2022		
15	January (17-22)	Corey-House reaction and de carboxylation of carboxylic acids, physical properties.
SUNDAY - 23.01.2022		
16	January (24-29)	Mechanism of free radical halogenation of alkanes: reactivity and selectivity. Cycloalkanes nomenclature,
SUNDAY - 30.01.2022		
17	January(31)	synthesis of cycloalkanes and their derivatives – photochemical (2+2) cycloaddition reactions
	February(1-4)	
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	dehalogenation of dihalides, , pyrolysis of calcium or barium salts of dicarboxylic acids
SUNDAY - 13.02.2022		

19	February (14-19)	Baeyer's strain theory and its limitations., theory of strainless rings.
SUNDAY - 20.02.2022		
20	February (21-22)	REVISION,CLASS TEST

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022)

(Odd Semester)

Weekly Lesson Plan UG (1st Semester)

Name of the Paper:- Name of paper:cell biology

Class: B.Sc. 1st year

Name of the Teachers (Section wise): Ms. Kiran

WEEK	DATE	TOPICS
1	October (6 - 9)	HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		Cell Envelope:- Cell Wall
		Cell wall
		SUNDAY - 10.10.2021
2	October (11-16)	
		Cell Envelope:- Cell Wall
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Cell wall
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		cell wall
		Plasma membrane
		Plasma membrane
SUNDAY - 24.10.2021		
4	October (25 -30)	
		Plasma membrane
		Plasma membrane
		Plasma membrane
SUNDAY - 31.10.2021 to 07.11.2021 (Diwali Break)		

5	November (8 -13)	
		Cell Organelle:- Nucleus
		Nucleus
SUNDAY - 14.11.2021		
6	November (15 -20)	
		Golgi Apparatus
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	
		Endoplasmic Reticulum
		Endoplasmic Reticulum
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	
		Chloroplast
		Chloroplast
SUNDAY - 5.12.2021		
9	December (6-11)	
		Mitochondria
		Mitochondria
SUNDAY - 12.12.2021		

10	December (13-18)	
		Lysosome, Peroxisomes and Vacuole
		Lysosome, Peroxisomes and Vacuole
		Cell Division:- Mitosis
SUNDAY - 19.12.2021		
11	December (20-25)	
		Cell Division:- Meiosis
		Meiosis
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31) January (1)	
		Meiosis
		Chromosome Organization
		Chromosome Organization
SUNDAY - 02.01.2022		
13	January (3-8)	
		Chromosome Organization
		Chromosome Organization
		Sex Determination
SUNDAY - 09.01.2022		
14	January (10-15)	
		Sex Determination
		Chromosome:- Structural Alterations
		Chromosome:- Structural Alterations
SUNDAY - 16.01.2022		
15	January (17-22)	
		Chromosome:- Structural Alterations
		Chromosome:- Structural Alterations
		Chromosome:- Structural Alterations
SUNDAY - 23.01.2022		

16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Chromosome:- Numerical Alterations
		Chromosome:- Numerical Alterations
SUNDAY -30.01.2022		
17	January(31)	
	February(1-4)	
		Chromosome :Numerical Alterations
		Karyotype
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	
		Revision
		Revision
		Revision
SUNDAY - 13.02.2022		
19	February (14-19)	
		Revision Test - I
		Revision Test - II
		Assignment
SUNDAY - 20.02.2022		
20	February (21-22)	

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (Ist / IIIrd / Vth Semester)

Name of the Paper:- DIVERSITY OF MICROBES Paper: I Class: B.SC -1st(1st SEM)

Ms Rajni

WEEK	DATE	TOPICS
1	October (6 - 9)	Introduction to algae
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
SUNDAY - 10.10.2021		
2	October (11-16)	Introduction to algae
		Introduction to algae
		Economic importance of algae
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	Classification of Algae
		Classification of Algae
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY - 24.10.2021		
4	October (25 -30)	<i>Volvox</i> structure and Reproduction
		<i>Volvox</i> structure and Reproduction
		<i>Oedogonium</i> structure and Reproduction
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	<i>Oedogonium</i> structure and Reproduction
		<i>Oedogonium</i> structure and Reproduction
		<i>Vaucheria</i> structure and Reproduction
SUNDAY - 14.11.2021		
6	November (15 -20)	<i>Vaucheria</i> structure and Reproduction
		<i>Ectocarpus</i> structure and Reproduction
		<i>Ectocarpus</i> structure and Reproduction
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	<i>Ectocarpus</i> structure and Reproduction
		<i>Polysiphonia</i> structure and Reproduction
		<i>Polysiphonia</i> structure and Reproduction
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	<i>Polysiphonia</i> structure and Reproduction
		Bacteria structure and Reproduction
		Bacteria structure and Reproduction
SUNDAY - 5.12.2021		

9	December (6-11)	<i>Cyanobacteria</i> structure and Reproduction
		<i>Cyanobacteria</i> structure and Reproduction
		Introduction to virus
SUNDAY - 12.12.2021		
10	December (13-18)	Introduction to virus
		Introduction to virus
		Class test, assignment
SUNDAY - 19.12.2021		
11	December (20-25)	Introduction to fungi
		Introduction to fungi
		Introduction to fungi, Classification of fungi
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	<i>Phthophthora</i> structure and Reproduction
		<i>Phthophthora</i> structure and Reproduction
		<i>Mucor</i> structure and Reproduction
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	<i>Mucor</i> structure and Reproduction
		<i>Mucor</i> structure and Reproduction
		Class test
SUNDAY - 09.01.2022		

14	January (10-15)	<i>Penicillium</i> structure and Reproduction
		<i>Penicillium</i> structure and Reproduction
		<i>Penicillium</i> structure and Reproduction
SUNDAY - 16.01.2022		
15	January (17-22)	<i>Colletotrichum</i> structure and reproduction
		<i>Colletotrichum</i> structure and reproduction
		<i>Agaricus</i> structure and Reproduction
SUNDAY - 23.01.2022		
16	January (24-29)	<i>Agaricus</i> structure and Reproduction
		<i>Agaricus</i> structure and Reproduction
		Holiday - 26.01.2022 - Republic day
SUNDAY - 30.01.2022		
17	January(31)	<i>Agaricus</i> structure and Reproduction
	February(1-4)	<i>Puccinia</i> structure and Reproduction
		<i>Puccinia</i> structure and Reproduction
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	<i>Puccinia</i> structure and Reproduction
		<i>Puccinia</i> structure and Reproduction
		<i>Puccinia</i> structure and Reproduction
SUNDAY - 13.02.2022		

19	February (14-19)	Lichens Structure And Reproduction
		Lichens Structure And Reproduction
		Lichens Structure And Reproduction
		SUNDAY - 20.02.2022
20	February (21-22)	REVISION
		REVISION

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (Ist / IIIrd / Vth Semester)

Name of the Paper: Introduction to Biotechnology Paper:I

Class: BSc.Ist Sem

Name of the Teachers (Section wise): Anjushree Saraswal

WEEK	DATE	TOPICS
1	October (6 - 9)	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
SUNDAY - 10.10.2021		
2	October (11-16)	Definition and scope of Biotechnology
		Definition and scope of Biotechnology
		Definition and scope of Biotechnology
		HOLIDAY - 15.10.2021 - DUSSEHRA
SUNDAY - 17.10.2021		
3	October (18-23)	Definition and scope of Biotechnology
		Introduction of Genetic Engineering
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
SUNDAY - 24.10.2021		
4	October (25 -30)	Plant tissue Culture
		Plant tissue Culture
		Plant tissue Culture
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Animal tissue Culture
		Animal tissue Culture
		Animal tissue Culture
SUNDAY - 14.11.2021		
6	November (15 -20)	Fermentation Technology
		Fermentation Technology
		Immobilized enzymes
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	November (22-27)	Immobilized enzymes
		Monoclonal antibodies
		Embryo transfer technology
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Introduction to gene& genomes
		Introduction to gene& genomes
		Proteins and proteome
SUNDAY - 5.12.2021		

9	December (6-11)	Proteins and proteome
		Proteins and proteome
		Genetic manipulations
SUNDAY - 12.12.2021		
10	December (13-18)	Genetic manipulations
		Genetic manipulations
		Genetic manipulations
SUNDAY - 19.12.2021		
11	December (20-25)	DNA Fingerprinting and Forensic Analysis
		Assignments
		Application of biotechnology
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	Application of biotechnology
		Application of biotechnology
		Application of biotechnology
	January (1)	
SUNDAY -02.01.2022		
13	January (3-8)	Bioremediation
		Bioremediation
		Bioremediation
SUNDAY - 09.01.2022		

14	January (10-15)	Biotechnology research in India
		Biotechnology in context of Developing world
		Safety guidelines
SUNDAY - 16.01.2022		
15	January (17-22)	Ethics in Biotechnology
		Ethics in Biotechnology
		Ethics in Biotechnology
SUNDAY - 23.01.2022		
16	January (24-29)	Intellectual Property rights
		Intellectual Property rights
		Holiday - 26.01.2022 - Republic day
SUNDAY - 30.01.2022		
17	January(31)	Intellectual Property rights
	February(1-4)	Intellectual Property rights
		Intellectual Property rights
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Intellectual Property rights
		Intellectual Property rights
		Revision Test
SUNDAY - 13.02.2022		

19	February (14-19)	Revision Test
		Revision Test
		Revision Test
SUNDAY - 20.02.2022		
20	February (21-22)	Revision Test

**I.B. (PG) COLLEGE, PANIPAT
(SESSION 2021-2022)**

Teaching Term : (06.10.2021 to 22.02.2022) (Odd Semester)

Weekly Lesson Plan UG (Ist / IIIrd / Vth Semester)

Name of the Paper:-Biochemistry:I Paper II Class: Bsc.Ist Sem

Name of the Teachers (Section wise): Anjushree Saraswal

WEEK	DATE	TOPICS
1	October (6 - 9)	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME & LIBRARY VISIT (SCIENCE)
SUNDAY - 10.10.2021		
2	October (11-16)	
		Biomolecules: Introduction, important features
		HOLIDAY - 15.10.2021 - DUSSEHRA
	covalent and non-covalent interactions	
SUNDAY - 17.10.2021		
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Carbohydrates introduction and biological significance Carbohydrates introduction and biological significance Carbohydrates introduction and biological significance
SUNDAY - 24.10.2021		
4	October (25 -30)	
		Monosaccharides Monosaccharides Monosaccharides
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	
		Monosaccharides Configuration and Conformation Configuration and Conformation
SUNDAY - 14.11.2021		
6	November (15 -20)	
		Configuration and Conformation
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
	Configuration and Conformation	
SUNDAY - 21.11.2021		
7	November (22-27)	
		Reducing and Non-reducing sugars Reducing and Non-reducing sugars Reducing and Non-reducing sugars
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	
		Reducing and Non-reducing sugars Glycosidic bond Disaccharides Glycosidic bond Disaccharides
SUNDAY - 5.12.2021		
9	December (6-11)	
		Polysaccharides Polysaccharides Polysaccharides
SUNDAY - 12.12.2021		

10	December (13-18)	
		Polysaccharides Amino acids, Peptides and Proteins Amino acids, Peptides and Proteins
SUNDAY - 19.12.2021		
11	December (20-25)	
		Amino acids, Peptides and Proteins Proteins: Classification based on structure and function Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	
	January (1)	Proteins: Classification based on structure and function Proteins: Classification based on structure and function Proteins: Classification based on structure and function
SUNDAY -02.01.2022		
13	January (3-8)	
		Lipids
		Lipids
SUNDAY - 09.01.2022		

14	January (10-15)	
		Lipids
		Lipids
SUNDAY - 16.01.2022		
15	January (17-22)	
		Assignments
		Lipids
SUNDAY - 23.01.2022		
16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Lipids
		Nucleotides and Nucleic acids Nucleotides and Nucleic acids
SUNDAY - 30.01.2022		
17	January(31)	
	February(1-4)	Nucleotides and Nucleic acids
		Nucleotides and Nucleic acids Properties of DNA
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	
		Properties of DNA
		Biologically important nucleotides and their functions Biologically important nucleotides and their functions
SUNDAY - 13.02.2022		

19	February (14-19)	
		Biologically important nucleotides and their functions
		Revision test
		Revision test
		SUNDAY - 20.02.2022
20	February (21-22)	