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:Animal Biotechnology   Paper:I   Class:B.SC III Vth Semester

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

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)	
		Animal Cell & Tissue Culture
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Animal Cell & Tissue Culture
		SUNDAY - 17.10.2021
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Animal Cell & Tissue Culture
		Animal Cell & Tissue Culture
		Culture Media
		SUNDAY - 24.10.2021
4	October (25 -30)	
		Culture Media
		Culture Media
		Primary Cell Culture techniques
		VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK

5	November (8 -13)	

	SUNDAY - 14.11.2021

6	November (15 -20)	
		Primary Cell Culture techniques
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		Primary Cell Culture techniques

	SUNDAY - 21.11.2021

7	November (22-27)	
		Primary Cell Culture techniques
		Secondary cell culture
		Secondary cell culture

	SUNDAY - 28.11.2021

8	November (29-30) December (1-4)	
		Secondary cell culture
		Organ Culture: technique
		Organ Culture: technique

	SUNDAY - 5.12.2021

9	December (6-11)	
		Transfection methods
		Transfection methods
		Selectable markers
SUNDAY - 12.12.2021		
10	December (13-18)	
		Selectable markers
		Cloning and expression :genes
		Cloning and expression :genes
SUNDAY - 19.12.2021		
11	December (20-25)	
		Production of vaccines in animal cells
		Hybridoma Technology
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021		
12	December (27-31)	
		Assignment
		Embryo transfer technology
	January (1)	Embryo transfer technology
SUNDAY -02.01.2022		
13	January (3-8)	
		Transgenic Animals
		Transgenic Animals
		Production of transgenic mice
SUNDAY - 09.01.2022		

14	January (10-15)	
		Therapeutic products
		Therapeutic products
		Therapeutic products
SUNDAY - 16.01.2022		
15	January (17-22)	
		Gene Therapy
		Gene Therapy
		Test
SUNDAY - 23.01.2022		
16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Scope and Applications
		Scope and Applications
		Scope and Applications
SUNDAY - 30.01.2022		
17	January(31)	
	February(1-4)	
		Scope and Applications
		Scope and Applications
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	
		Expressed proteins
		Expressed proteins
		Expressed proteins
SUNDAY - 13.02.2022		
19	February (14-19)	
		Revision Test
		Revision Test
		Revision Test
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)   PG (IIIrd Semester)

Name of the Paper:Plant Biotechnology   Paper:II   Class: BSC III Vth Semester

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

WEEK	DATE	TOPICS
1	**October (6 - 9)**	**HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti**
		ORIENTATION PROGRAMME & LIBRARY VISIT **(SCIENCE)**
		SUNDAY - 10.10.2021
		Plant Tissue Culture: Introduction/Concept, History, Scope and Applications along with major achievements
		Plant Tissue Culture: Introduction/Concept, History, Scope and Applications along with major achievements
2	**October (11-16)**	**Plant Tissue Culture: Introduction/Concept, History, Scope and Applications along with major achievements**
		HOLIDAY - 15.10.2021 - DUSSEHRA
		SUNDAY - 17.10.2021
		Plant Tissue Culture Laboratory
		Plant Tissue Culture Laboratory
3	**October 23)** (18	**Holiday - 20.10.2021 - Maharishi Valmiki Jayanti**
		SUNDAY - 24.10.2021
		Aseptic Techniques
		Aseptic Techniques
4	**October -30)** (25	**maintenance of aseptic conditions**
		VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK

5	November (8 -13)	

SUNDAY - 14.11.2021	

6	November (15 -20)	maintenance of aseptic conditions
		maintenance of aseptic conditions
		In-vitro methods in plant tissue culture
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti

SUNDAY - 21.11.2021	

7	November (22-27)	In-vitro methods in plant tissue culture
		In-vitro methods in plant tissue culture
		Callus and suspension culture techniques

SUNDAY - 28.11.2021	

8	November (29-30) December (1-4)	Callus and suspension culture techniques
		Somaclonal variation.
		Somaclonal variation.

SUNDAY - 5.12.2021	

9	December (6-11)	Organ culture		
		Organ culture		
		Organ culture		
SUNDAY - 12.12.2021				
10	December (13-18)	Organ culture		
		Organ culture		
		Protoplast culture		
SUNDAY - 19.12.2021				
11	December (20-25)	Protoplast culture		
		Protoplast culture		
		Protoplast culture		
		Holiday -25.12.2021 - Christmas		
SUNDAY - 26.12.2021				
12	December (27-31)	Production of secondary metabolites in vitro		
		Production of secondary metabolites in vitro		
		Production of secondary metabolites in vitro		
	January (1)			
SUNDAY -02.01.2022				
13	January (3-8)	Biotransformation		
		Biotransformation		
		Plant germ plasm conservation and cryopreservation		
SUNDAY - 09.01.2022				

14	January (10-15)	Plant germ plasm conservation and cryopreservation
		Introduction, Plant transformation
		Introduction, Plant transformation

		SUNDAY - 16.01.2022

15	January (17-22)	Introduction, Plant transformation
		Transgenic Plants: Introduction and applications
		Transgenic Plants: Introduction and applications

		SUNDAY - 23.01.2022

16	January (24-29)	Transgenic Plants: Introduction and applications
		Transgenic Plants: Introduction and applications
		Holiday - 26.01.2022 - Republic day

		SUNDAY - 30.01.2022

17	January(31)	Transgenic Plants: Introduction and applications
	February(1-4)	Applications of Plant tissue cultures
		Applications of Plant tissue cultures

Holiday - 05.02.2022 - Vasant Panchami

SUNDAY - 6.02.2022

18	February (7-12)	Applications of Plant tissue cultures
		Applications of Plant tissue cultures
		Applications of Plant tissue cultures

		SUNDAY - 13.02.2022

19	February (14-19)	Applications of Plant tissue cultures
		Applications of Plant tissue cultures
		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   (Vth Semester)

Name of the Paper:- Plant Physiology   Class: B.Sc. 3rd Year

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

WEEK	DATE	TOPICS
1	**October (6 - 9)**	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		SUNDAY - 10.10.2021
2	**October (11-16)**	Importance of water and property of water
		Imbibition
		Diffusion
		HOLIDAY - 15.10.2021 - DUSSEHRA
		SUNDAY - 17.10.2021
3	**October (18-23)**	Osmosis
		Osmosis
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		SUNDAY - 24.10.2021
4	**October (25 -30)**	**Plasmolysis**
		Plasmolysis
		Absorption and Transport of Water
		SUNDAY - 31.10.2021 to 07.11.2021 (Diwali Break)

5	November (8 -13)	**Absorption and Transport of Water**
		Absorption and Transport of Water
		Absorption and Transport of Water

| | SUNDAY - 14.11.2021 | |

6	November (15 -20)	Ascent of SAP
		Ascent of SAP
		Ascent of SAP
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti

| | SUNDAY - 21.11.2021 | |

7	November (22-27)	Transpiration
		Transpiration
		Transpiration

| | SUNDAY - 28.11.2021 | |

8	November (29-30) December (1-4)	Transpiration
		Physiology of stomata
		Test

| | SUNDAY - 5.12.2021 | |

9	December (6-11)	Mineral Nutrition
		Mineral Nutrition
		Mineral Nutrition

| | SUNDAY - 12.12.2021 | |

10	December (13-18)	Transport of organic substance
		Transport of organic substance
		Transport of organic substance

| | SUNDAY - 19.12.2021 | |

11	December (20-25)	Assignment
		Photosynthesis
		Photosynthesis
		Holiday -25.12.2021 - Christmas

| | SUNDAY - 26.12.2021 | |

12	December (27-31)	Photosynthesis
		Photosynthesis
		Photosynthesis
	January (1)	

13	January (3-8)	**Test - I**
		Respiration
		Respiration

14	January (10-15)	Respiration
		Respiration
		Respiration

15	January (17-22)	**Test - II**
		Plant Movement
		Plant Movement

16	January (24-29)	Plant Movement
		Assignment
		Holiday - 26.01.2022 - Republic day

17	January(31)	Photoperiodism
	February(1-4)	Photoperiodism
		Photoperiodism

Holiday - 05.02.2022 - Vasant Panchami

18	February (7-12)	Vernalization
		Senescence
		Senescence

		SUNDAY - 13.02.2022

19	February (14-19)	**Seed dormancy**
		Seed dormancy
		Fruit repinig

		SUNDAY - 20.02.2022

| 20 | February (21-22) | **Fruit ripening** |
| | | **Revision** |

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(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: Ecology   **Class: BScVth Semester**

Name of the Teachers (Section wise): Dr. Nidhan Singh

WEEK	DATE	TOPICS
1	October (6 - 9)	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORIENTATION PROGRAMME & LIBRARY VISIT **(SCIENCE)**
		ORIENTATION PROGRAMME & LIBRARY VISIT **(ARTS)**
		SUNDAY - 10.10.2021
2	October (11-16)	
		Introduction to Ecology
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Introduction to Ecology
		SUNDAY - 17.10.2021
3	October (18-23)	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Scope of Ecology
		Levels of Organisation, Environment
		Environmental Components
		SUNDAY - 24.10.2021
4	October (25 -30)	
		Climatic Factors- Water
		Climatic Factors- Water,Humidity
		Climatic Factors- Wind and Light
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	November (8 -13)	
		Climatic Factors- Wind and Light
		Climatic Factors- Light
		Climatic Factors- Light
SUNDAY - 14.11.2021		
6	November (15 -20)	
		Edaphic Factors- Soil Complex
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		Soil- Physico-chemical Properties
SUNDAY - 21.11.2021		
7	November (22-27)	
		Soil-Profiles
		Topographic Factors
		Biotic Factors
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	
		Hydrophytes- Adaptations
		Hydrophytes- Adaptations
		Xerophytes- Adaptations
SUNDAY - 5.12.2021		

9	December (6-11)	
		Halophytes- Adaptations
		Population Characteristics-Qualitative
		Population Characteristics-Qualitative
SUNDAY - 12.12.2021	

10	December (13-18)	
		Biotic Potential
		Growth Curves, Ecotypes, Ecads
		Community Characteristics-I
SUNDAY - 19.12.2021	

11	December (20-25)	
		Community Characteristics-I
		Community Characteristics-II
		Holiday -25.12.2021 - Christmas
SUNDAY - 26.12.2021	

12	December (27-31)	
		Community Characteristics-II
		Community Analysis
	January (1)	**Ecological Succession**
SUNDAY -02.01.2022	

13	January (3-8)	
		Ecological Succession
		Ecological Succession
		Ecosystem Structure
SUNDAY - 09.01.2022	

14	January (10-15)	
		Ecosystem Structure
		Ecosystem Structure
		Ecosystem Structure
	SUNDAY - 16.01.2022	

15	January (17-22)	
	SUNDAY - 23.01.2022	

16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Ecosystem -Food Chains, webs
		Ecosystem -Food Chains, webs
	SUNDAY - 30.01.2022	

14	January(31)	
	February(1-4)	
		Ecological Pyramids
		Ecological Pyramids
	Holiday - 05.02.2022 - Vasant Panchami	
	SUNDAY - 6.02.2022	

15	February (7-12)	
		Revision, Discussion and Doubts
		Energy Flow
		Energy Flow
		SUNDAY - 13.02.2022

16	**February (14-19)**	
		Revision, Discussion and Doubts
		Revision, Discussion and Doubts
		Assignments
		SUNDAY - 20.02.2022
17	**February (21-22)**	

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

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

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

Name of the Teachers (Section wise): PROF. SIMRAN

WEEK	DATE	TOPICS
1	October (6 - 9)	Limitations of valence bond theory, an elementary idea of crystal field theory,
SUNDAY - 10.10.2021		
2	October (11-16)	crystal field splitting in octahedral
SUNDAY - 17.10.2021		
3	October (18-23)	Crystal field splitting inTetrahedral
SUNDAY - 24.10.2021		
4	October (25 -30)	Crystal field splitting in square planer complexes
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	factors affecting the crystal field parameters
SUNDAY - 14.11.2021		
6	November (15 -20)	A brief outline of thermodynamic stability of metal complexes and factors affecting the stability
SUNDAY - 21.11.2021		
7	November (22-27)	Irving William Series, substitution reactions of square planer complexes of Pt[II],
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Trans effect,class test
SUNDAY - 5.12.2021		

9	December (6-11)	Types of magnetic materials, magnetic susceptibility
	SUNDAY - 12.12.2021	
10	December (13-18)	Method of determining magnetic susceptibility
	SUNDAY - 19.12.2021	
11	December (20-25)	Spin only formula, L-S coupling, correlation of μ_s and μ_{eff} values
	SUNDAY - 26.12.2021	
12	December (27-31)	Orbital contribution to magnetic moments
	January (1)	
	SUNDAY -02.01.2022	
13	January (3-8)	Application of magnetic moment data for 3d metal complexes
	SUNDAY - 09.01.2022	

14	January (10-15)	Selection rules for d-d transition
	SUNDAY - 16.01.2022	
15	January (17-22)	Spectroscopic ground states
	SUNDAY - 23.01.2022	
16	January (24-29)	Spectrochemical series,
	SUNDAY - 30.01.2022	
17	January(31) February(1-4)	Orgel energy level diagram for d1 and d9 states
	Holiday - 05.02.2022 - Vasant Panchami	
	SUNDAY - 6.02.2022	
18	February (7-12)	Discussion of electronic spectrum of [Ti(H2O)6]+3 complex ion.
	SUNDAY - 13.02.2022	
19	February (14-19)	REVISION,CLASS TEST
	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:-Organic Chemistry **Class: B.Sc (III) A**

Name of the Teachers (Section wise): PROF. RANJANA SHARMA

WEEK	DATE	TOPICS
1	October (6 - 9)	Principle of nuclear magnetic resonance, the PMR spectrum
	SUNDAY - 10.10.2021	
2	October (11-16)	Number of signals, peak areas, equivalent and nonequivalent protons positions of signals
	SUNDAY - 17.10.2021	
3	October (18-23)	Chemical shift,shielding and deshielding of protons, proton counting
	SUNDAY - 24.10.2021	
4	October (25 -30)	Splitting of signals and coupling constants, magnetic equivalence of Proton
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	November (8 -13)	Discussion of PMR spectra of the molecules: ethyl bromide, n-propyl bromide, isopropyl bromide,
		SUNDAY - 14.11.2021
6	November (15 -20)	Discussion of PMR spectra of the molecules: 1,1-dibromoethane, ethanol, acetaldehyde, ethyl acetate
		SUNDAY - 21.11.2021
7	November (22-27)	Discussion of PMR spectra of the molecules: Toluene, benzaldehyde and acetophenone
		SUNDAY - 28.11.2021
8	November (29-30) December (1-4)	Simple problems on PMR spectroscopy for structure determina tion of organic compounds.
		SUNDAY - 5.12.2021

9	December (6-11)	Classification and nomenclature of Monosaccharides, mechanism of osazone formation
	SUNDAY - 12.12.2021	
10	December (13-18)	Interconversion of glucose and fructose, chain lengthening of aldoses.
	SUNDAY - 19.12.2021	
11	December (20-25)	Chain shortening of aldosesConfiguration of monosaccharides
	SUNDAY - 26.12.2021	
12	December (27-31)	Erythro and threo diastereomers. Conversionof glucose into mannose.
	January (1)	
	SUNDAY -02.01.2022	
13	January (3-8)	Formation of glycosides, Determination of ring size of glucose and fructose
	SUNDAY - 09.01.2022	

14	January (10-15)	Open chain and cyclic structure of D(+)-glucose & D(-) fructose.
		SUNDAY - 16.01.2022
15	January (17-22)	Mechanism of mutarota tion. Structures of ribose and deoxyribose.
		SUNDAY - 23.01.2022
16	January (24-29)	An introduction to di saccharides (mal tose, sucrose and lactose) and polysccharides (starch and cellulose) without involving structure determination.
		SUNDAY - 30.01.2022
17	January(31) / February(1-4)	Organomagnesium compounds: the Grignard reagents-format ion, structure and chemical reactions.
		Holiday - 05.02.2022 - Vasant Panchami
		SUNDAY - 6.02.2022
18	February (7-12)	Organozinc compounds: formation and chemical reactions.
		SUNDAY - 13.02.2022

19	February (14-19)	Organo lithium compounds: formation and chemical reactions.
		SUNDAY - 20.02.2022
20	February (21-22)	

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

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

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

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

WEEK	DATE	TOPICS
1	October (6 - 9)	Introduction: Electromagnetic radiation, regions of spectrum, basic features of spectroscopy
		SUNDAY - 10.10.2021
2	October (11-16)	Statement of Born-oppenheimer approximation, Degrees of freedom.
		SUNDAY - 17.10.2021
3	October (18-23)	Selection rules, Energy levels of rigid rotator (semi-classical principles), rotational spectra of diatomic molecules
		SUNDAY - 24.10.2021
4	October (25 -30)	Spectral intensity distribution using population distribution (Maxwell-Boltzmann distribution), determination of bond length and isotopic effect .

VACATIONS: 31.10.2021 to 07.11.2021   - DIWALI BREAK

5	November (8 -13)	Selection rules, Energy levels of simple harmonic oscillator, pure vibrational spectrum of diatomic molecules, determination of force constant and
SUNDAY - 14.11.2021		
6	November (15 -20)	qualitative relation of force constant and bond energy, idea of vibrational frequencies of different functional groups.
SUNDAY - 21.11.2021		
7	November (22-27)	Concept of polarizibility, pure rotational and pure vibrational Raman spectra of diatomic molecules
SUNDAY - 28.11.2021		
8	November (29-30) December (1-4)	Selection rules, Quantum theory of Raman spectra.
SUNDAY - 5.12.2021		

9	December (6-11)	Revision, class test

		SUNDAY - 12.12.2021

10	December (13-18)	Black-body radiation, Plank's radiation law, photoelectric effect,

		SUNDAY - 19.12.2021

11	December (20-25)	Postulates of quantum mechanics, quantum mechanical operators, commutation relations

		SUNDAY - 26.12.2021

12	December (27-31)	Hamiltonian operator, Hermi tian operator, average value of square of Hermitian as a positive quantity
	January (1)	

		SUNDAY -02.01.2022

13	January (3-8)	Role of operators in quantum mechanics, To show quantum mechanically that position and momentum cannot be predicated simul taneously,

		SUNDAY - 09.01.2022

14	January (10-15)	Determination of wave function & energy of a particle in one dimensional box.
	SUNDAY - 16.01.2022	
15	January (17-22)	Optical activity, polarization – (Clausius – Mossotti equation derivation excluded). Orientation of dipoles in an electric field, dipole moment
	SUNDAY - 23.01.2022	
16	January (24-29)	Induced dipole moment,Measurement of dipole moment -temperature method
	SUNDAY - 30.01.2022	
17	January(31)	Refractivity method, dipole moment and structure of molecules
	February(1-4)	
	Holiday - 05.02.2022 - Vasant Panchami	
	SUNDAY - 6.02.2022	
18	February (7-12)	Magnetic permeability, magnetic susceptibility and its determination
	SUNDAY - 13.02.2022	

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

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

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

Name of the Paper:-Fundamentals of Database Systems   Class: BSc(cs)5th sem

Name of the Teachers (Section wise): Deepty

WEEK	DATE	TOPICS
1	**October (6 - 9)**	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		Discussion about syllabus
		Basic Concepts – Data, Information, Records and files
	SUNDAY - 10.10.2021	
2	**October (11-16)**	
		Traditional file Based ApproachLimitations of Traditional File Based Approach
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Database Approach-Characteristics of Database Approach
	SUNDAY - 17.10.2021	
3	**October (18-23)**	
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Database Approach-Characteristics of Database Approach
		Database Management System (DBMS), Components of DBMS Environment,
		Database Management System (DBMS), Components of DBMS Environment,
	SUNDAY - 24.10.2021	
4	**October (25 -30)**	
		DBMS Functions and Components,
		Advantages and Disadvantages of DBMS
		Advantages and Disadvantages of DBMS
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	**November (8 -13)**	
		Actors on the Scene - Data and Database Administrator
		Database Designers, End users Applications Developers and Workers behind the Scene.
		Database Designers, End users Applications Developers and Workers behind the Scene.
SUNDAY - 14.11.2021		
6	**November (15 -20)**	
		Database System Architecture – Three Levels of Architecture
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		Schemas – External, Conceptual and Internal Level
SUNDAY - 21.11.2021		
7	**November (22-27)**	
		Database Languages – VDL, DDL, SDL, DML, SQL
		Mappings – External/ Conceptual and Conceptual/Internal
		Instances, Data Independence – Logical and Physical Data Independence
SUNDAY - 28.11.2021		
8	**November (29-30) December (1-4)**	
		Query Session
		Class Test
		Introduction about Data Models
SUNDAY - 5.12.2021		

9	December (6-11)	
		Assignment I
		High Level, Low Level and Representational Models
		Records- based Data Models,
SUNDAY - 12.12.2021		
10	December (13-18)	
		Object-based Data Models, Physical Data Models
		Conceptual Models
		Entity-Relationship Model
SUNDAY - 19.12.2021		
11	December (20-25)	
		Concepts of E-R Model, Entity Types, Entity Sets, Attributes
		Relationships, Constraints, Keys
	Holiday -25.12.2021 - Christmas	
SUNDAY - 26.12.2021		
12	December (27-31)	
		Degree, Cardinality
		E-R Model of Inventory System
	January (1)	E-R Model of Payroll System
SUNDAY -02.01.2022		
13	January (3-8)	
		E-R Model of Reservation System
		E-R Model of Online Book Store
		Classification of Database Management System
SUNDAY - 09.01.2022		

14	January (10-15)	
		Conditional Test
		Centralized and Client Server architecture
		Relational Data Model:-Brief History

SUNDAY - 16.01.2022

15	January (17-22)	
		Terminology in Relational Data Structure, Relations,
		Assignment II
		Properties of Relations, Keys – Primary, Secondary, Composite, Candidate, Alternate

SUNDAY - 23.01.2022

16	January (24-29)	
		Holiday - 26.01.2022 - Republic day
		Foreign key
		Query Session
		Query Session

SUNDAY - 30.01.2022

17	January(31)	
	February(1-4)	
		Domains
		Domains

Holiday - 05.02.2022 - Vasant Panchami

SUNDAY - 6.02.2022

18	February (7-12)	
		Integrity Constraints over Relations.
		Integrity Constraints over Relations.
		Integrity Constraints over Relations.

		SUNDAY - 13.02.2022

19	**February (14-19)**	
		Revision
		Revision
		Revision
		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:-   Web Designing Fundamentals   Class: BSc(cs) 5th sem

Name of the Teachers (Section wise): Deepty

WEEK	DATE	TOPICS
1	October (6 - 9)	Discussion about syllabus
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
	SUNDAY - 10.10.2021	
2	October (11-16)	Introduction to Internet and World Wide Web
		Evolution and History of World Wide Web
		Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol
		HOLIDAY - 15.10.2021 - DUSSEHRA
	SUNDAY - 17.10.2021	
3	October (18-23)	URLs; Searching and Web- Casting Techniques
		Search Engines and Search Tools
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
	SUNDAY - 24.10.2021	
4	October (25 -30)	Steps for Developing Website
		Choosing the Contents; Home Page; Domain Names
		Internet Service Provider; Planning and Designing Web Site
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	**November (8 -13)**	Creating a Website;
		Creating a Website;
		Web Publishing: Hosting Site

SUNDAY - 14.11.2021	

6	**November (15 -20)**	Introduction to HTML; Hypertext and HTML
		HTML Document Features
		HTML Tags; Header, Title, Body, Paragraph
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti

SUNDAY - 21.11.2021	

7	**November (22-27)**	Ordered/Unordered Line, Creating Links
		Creating Links
		Headers; Text Styles

SUNDAY - 28.11.2021	

8	**November (29-30) December (1-4)**	Text Structuring; Text Colors and Background
		Formatting Text; Page layouts
		Insertion of Text, Movement of Text

SUNDAY - 5.12.2021	

9	December (6-11)	Group Discussion
		Assignment I
		Class Test

	SUNDAY - 12.12.2021	

10	December (13-18)	Images: Types of Images
		Insertion of Image, Movement of Image
		Ordered and Unordered lists;

	SUNDAY - 19.12.2021	

11	December (20-25)	Inserting Graphics
		Table Handling Functions like Columns, Rows, Width
		Colours; Frame Creation and Layouts;

		Holiday -25.12.2021 - Christmas

	SUNDAY - 26.12.2021	

12	December (27-31)	Colours; Frame Creation and Layouts;
		Working with Forms and Menus
		Working with Forms and Menus
	January (1)	

	SUNDAY -02.01.2022	

13	January (3-8)	Working with Forms and Menus
		Query Session
		Query Session

	SUNDAY - 09.01.2022	

14	January (10-15)	Working with Forms and Menus
		Group Discussion
		Presentation

SUNDAY - 16.01.2022

15	January (17-22)	Assignment II
		Query Session
		Query Session

SUNDAY - 23.01.2022

16	January (24-29)	Conditional Test
		Working with Buttons like Radio, Check Box;
		Holiday - 26.01.2022 - Republic day

SUNDAY - 30.01.2022

17	January(31)	Working with Buttons like Radio, Check Box;
	February(1-4)	Practical Implementation
		Practical Implementation

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
		Revision
		Revision
		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 (Vth Semester)

Name of the Paper:-   GROUPS AND RINGS   Class: B.SC. III

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
		BINARY OPERATION AND ALGEBRAIC STRUCTURE
		SEMI GROUP AND MONOID
		GROUP
		HOLIDAY - 15.10.2021 - DUSSEHRA
		EXAMPLES
		SUNDAY - 17.10.2021
3	**October (18-23)**	EXAMPLES
		EXAMPLES
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		ADDITION MODULO
		MULTIPLICATION MODULO
		EXAMPLES
		SUNDAY - 24.10.2021
4	**October (25 -30)**	**BASIC PROPERTIES OF GROUP**
		BASIC PROPERTIES OF GROUP
		ORDER OF ELEMENT
		THEOREMS ON ORDER OF ELEMENT
		THEOREMS ON ORDER OF ELEMENT
		PROBLEM DISCUSSION
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	November (8 -13)	SUBGROUPS
		THEOREMS
		EXAMPLES
		ALGEBRA OF SUBGROUPS
		EXAMPLES
		NORMALISER

SUNDAY - 14.11.2021

6	November (15 -20)	COSETS
		THEOREMS ON COSETS
		LAGRANGES THEOREM
		CYCLIC GROUPS
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		THEOREMS ON CYCLIC GROUPS

SUNDAY - 21.11.2021

7	November (22-27)	EXAMPLES
		PROBLEM DISCUSSION
		NORMAL SUBGROUP AND SIMPLE GROUP
		THEOREMS ON NORMAL SUBGROUPS
		QUOTIENT GROUP
		REVISION

SUNDAY - 28.11.2021

8	November (29-30) December (1-4)	HOMOMORPHISM
		KERNAL OF HOMOMORPHISM
		THEOREMS ON HOMOMORPHISM
		FUNDAMENTAL THEOREM OF HOMOMORPHISM
		CENTRE OF A GROUP
		AUTOMORPHISM ON A GROUP

SUNDAY - 5.12.2021

9	**December (6-11)**	INNER AUTOMORPHISM
		PROPERTIES OF AUTOMORPHISM
		NORMALISER OF AN ELEMENT
		GROUP OF AUTOMORPHISM
		CHARACTERISTIC SUBGROUP
		COMMUTATOR SUBGROUP
SUNDAY - 12.12.2021		
10	**December (13-18)**	EXAMPLES
		PROBLEM DISCUSSION
		TEST
		PERMUTATION GROUP
		PERMUTATION OF FINITE SETS
		EXAMPLES
SUNDAY - 19.12.2021		
11	**December (20-25)**	TWO-ROWED REPRESENTATION OF A PERMUTATION
		TOTAL NUMBER OF PERMUTATIONS ON A FINITE SETS
		COMPOSITION OF PERMUTATIONS
		INVERSE OF A PERMUTATION
		THEOREMS
	Holiday -25.12.2021 - Christmas	
SUNDAY - 26.12.2021		
12	**December (27-31)**	TOTAL NUMBER OF EVEN PERMUTATIONS OF DEGREE N
		CAYLEYS THEOREM
		PROBLEM DISCUSSION
		TEST
		RING
	January (1)	RING EXAMPLES
SUNDAY -02.01.2022		
13	**January (3-8)**	FIELD
		EXAMPLES
		INTEGRAL DOMAIN
		THEOREMS
		CHARACTERISTIC OF A RING
		THEOREMS
SUNDAY - 09.01.2022		

14	January (10-15)	PROBLEM DISCUSSION
		TEST
		SUBRING OF A RING
		THEOREMS
		IDEALS OF A RING
		ALGEBRA OF IDEALS

SUNDAY - 16.01.2022

15	January (17-22)	IDEALS IN DIVISION RINGS AND FIELDS
		THEOREMS
		QUOTIENT RINGS
		EXAMPLES
		PROBLEM DISCUSSION
		TEST

SUNDAY - 23.01.2022

16	January (24-29)	RING HOMOMORPHISMS
		IMBEDDING OF RINGS
		Holiday - 26.01.2022 - Republic day
		IMBEDDING OF RING INTO A RING WITH UNITY
		IMBEDDING OF RING INTO A RING OF ENDOMORPHISM
		PROBLEM DISCUSSION

SUNDAY - 30.01.2022

17	January(31)	TEST
	February(1-4)	DIVISIBILITY
		EUCLIDEAN DOMAIN
		THEOREMS
		THEOREMS

Holiday - 05.02.2022 - Vasant Panchami

SUNDAY - 6.02.2022

18	February (7-12)	EXAMPLES
		PROBLEM DISCUSSION
		TEST
		RING OF POLYNOMIALS
		THEOREMS ON POLYNOMIALS
		REMAINDER THEOREM

SUNDAY - 13.02.2022

19	**February (14-19)**	RING OF POLYNOMIALS OVER N SYMBOLS
		RING OF POLYNOMIALS OVER N SYMBOLS
		UNIQUE FACTORIZATION DOMAIN
		PREMITIVE POLYNOMIAL
		PROBLEM DISCUSSION
		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   Vth Semester

Name of the Paper:- Numerical Analysis   Class: BSc IIIrd year

Name of the Teachers (Section wise): Prof Kanak Sharma

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)	Havan
		Finite Difference Operators
		Forward and Backward Differences
		Properties Of Operators
		HOLIDAY - 15.10.2021 - DUSSEHRA
		Fundamental Theorem of Difference Calculus
		SUNDAY - 17.10.2021
3	October (18-23)	Fundamental Theorem of Difference Calculus
		Questions based on Forward and Backward Differences
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Questions based on Forward and Backward Differences
		Effect of an Error in a Tabular Value
		Effect of an Error in a Tabular Value
		SUNDAY - 24.10.2021
4	October (25 -30)	One or More Missing Term
		Problem Discussion
		Class test based on the topics covered
		Interpolation with Equal Intervals
		Newton's Formula for Forward Interpolation
		Newton's Formula for Backward Interpolation
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	**November (8 -13)**	Questions based on Interpolation with Equal Intervals
		Subdivision of Intervals
		Problem Discussion
		Problem discussion
		Interpolation with Unequal Intervals
		Theorems
SUNDAY - 14.11.2021		
6	**November (15 -20)**	Newton's Divided Difference Formula
		Questions based on Newton's Divided Difference Formula
		Questions based on Newton's Divided Difference Formula
		Lagrange's Interpolation Formula
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		Questions based on Lagrange's Interpolation Formula
SUNDAY - 21.11.2021		
7	**November (22-27)**	Questions based on Lagrange's Interpolation Formula
		Hermite's Interpolation Formula
		Hermite's Interpolation Formula
		Problem discussion
		Class test based on the topics covered
		Central Difference Interpolation Formulae
SUNDAY - 28.11.2021		
8	**November (29-30) December (1-4)**	Central Difference Interpolation Formulae
		Bessel's Formula
		Bessel's Formula
		Sterling's Formula
		Sterling's Formula
		Problem Discussion
SUNDAY - 5.12.2021		

9	**December (6-11)**	Problem discussion
		Numerical Differentiation
		Numerical Differentiation
		Formulae for Numerical Differentiation
		Formulae for Numerical Differentiation
		Questions based on Numerical Differentiation
	SUNDAY - 12.12.2021	
10	**December (13-18)**	Questions based on Numerical Differentiation
		Problem Discussion
		Class test based on the topics covered
		Numerical Integration
		Numerical Integration
		Formula for numerical integration
	SUNDAY - 19.12.2021	
11	**December (20-25)**	Formula for numerical integration
		Trapezoidal rule
		Trapezoidal rule
		Simpson's Rule
		Simpson's Rule
	Holiday -25.12.2021 - Christmas	
	SUNDAY - 26.12.2021	
12	**December (27-31)**	Questions based on Simpson's Rule
		Questions based on Simpson's Rule
		Gauss Quadrature Formula
		Questions based on Gauss Quadrature Formula
		Questions based on Gauss Quadrature Formula
	January (1)	Problem Discussion
	SUNDAY -02.01.2022	
13	**January (3-8)**	Numerical Solution of ODE
		Numerical Solution of ODE
		Euler's Method
		Euler's Method
		Euler's Modified Method
		Euler's Modified Method
	SUNDAY - 09.01.2022	

14	**January (10-15)**	Runge-Kutta and Taylor's Series Method
		Runge-Kutta and Taylor's Series Method
		Problem Discussion
		Picard's Method
		Picard's Method
		Picard's Method
SUNDAY - 16.01.2022		
15	**January (17-22)**	Predictor-Corrector Method
		Predictor-Corrector Method
		Predictor-Corrector Method
		Problem Discussion
		Class test based on the topics covered
		Probability Distributions
SUNDAY - 23.01.2022		
16	**January (24-29)**	Probability Distributions
		Probability Distribution of a random variable
		Holiday - 26.01.2022 - Republic day
		Probability Distribution of a random variable
		Probability Distribution of a random variable
		Mean and Variance
SUNDAY - 30.01.2022		
17	**January(31)**	Mean and Variance
	February(1-4)	Problem Discussion
		Binomial Distribution
		Binomial Distribution
		Binomial Distribution
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	**February (7-12)**	Poisson and Normal Distribution
		Poisson and Normal Distribution
		Poisson and Normal Distribution
		Problem Discussion
		Problem Discussion
		Class test based on the topics covered
SUNDAY - 13.02.2022		

19	**February (14-19)**	Eigen Value Problems
		Eigen Value Problems
		Eigen Value Problems
		Eigen Value Problems
		Problem discussion
		Problem discussion
		SUNDAY - 20.02.2022
20	**February (21-22)**	Revision
		Revision

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

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

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

Name of the Paper:-   REAL ANALYSIS   Class: B.A./B.SC.

Name of the Teachers (Section wise): KOMAL

WEEK	DATE	TOPICS
1	October (6 - 9)	ORENTATION
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
		ORENTATION
		ORENTATION
		SUNDAY - 10.10.2021
2	October (11-16)	HAWAN
		INTRODUCTION TO RIEMANN INTEGRAL
		DEFINITION IF PARTITION,NORM, REFINEMENT ,UPPER SUM AND LOWER SUMS
		THEOREM BASED ON LOWER SUM AND UPPER SUM ,OSCILLATORY SUM
		HOLIDAY - 15.10.2021 - DUSSEHRA
		DOUBT CLEARING SESSION
		SUNDAY - 17.10.2021
3	October (18-23)	UPPER INTEGRAL AND LOWER INTEGRAL
		RIEMANN INTEGRAL AND EXAMPLES BASED UPON INTEGRAL FUNCTION
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		CLASS TEST
		EXERCISE 1.1
		THEOREM BASED UPON INTEGRABILITY ,DARBOUX 'S THEOREM
		SUNDAY - 24.10.2021
4	October (25 -30)	CONDITIONS OF INTEGRABILITY
		INTEGRABILITY OF CONTINUOUS FUNCTIONS
		SOME THEOREM AND EXAMPLES
		EXERCISE 1.2
		INTEGRABILITY OF MONOTONIC FUNCTIONS
		FUNDAMENTAL THEOREM OF INTEGRAL CALCULUS
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	**November (8 -13)**	MEAN VALUE THEOREM OF INTEGRAL CALCULUS AND EXAMPLES
		EXERCISE 1.3
		REVISION OF CHAPTER 1
		CLASS TEST
		ASSIGNMENT 1
		INTRODUCTION TO IMPROPER INTEGRALS
SUNDAY - 14.11.2021		
6	**November (15 -20)**	INTRODUCTION TO IMPROPER INTEGRALS
		IMPROPER INTEGRALS AND THEIR TYPES & THEIR CONVERGENCE
		EXAMPLES AND EXERCISE 2.1
		CAMPARISION TESTS AND EXAMPLES BASED ON COMPARISION TESTS
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
		EXERCISE 2.2
SUNDAY - 21.11.2021		
7	**November (22-27)**	ABEL'S AND DRICHLET'S TEST
		EXERCISE 2.3
		CLASS TEST
		EXERCISE 2.4
		FRULLANI'S INTEGRAL
		EXERCISE 2.5
SUNDAY - 28.11.2021		
8	**November (29-30) December (1-4)**	INTRODUCTION TO INTEGRAL AS A FUNCTION OF A PARAMETER
		CONTINUITY OF THE INTEGRAL,DIFFERENTIABILITY OF THE INTEGRAL,
		EXAMPLES
		EXERCISE 3.1
		DOUBT CLEARING SESSION
		CLASS TEST
SUNDAY - 5.12.2021		

9	**December (6-11)**	INTRODUCTION TO METRIC SPACES
		EXAMPLES BASED UPON DIFFERENT TYPES OF METRIC SPACES
		BOUNDED SEQUENCE ,BOUNDED FUNCTION
		INDUCED METRIC
		PSEUDO METRIC SPACES AND EXAMPLES BASED ON IT
		DISTANCE BETWEEN POINT AND SUBSET, DIAMETER OF A SUBSET
SUNDAY - 12.12.2021		
10	**December (13-18)**	DISTANCE BETWEEN TWO SETS
		BOUNDED AND UNBOUNDED METRIC SPACES AND EXAMPLES
		EXERCISE 4.1
		DOUBT CLEARING SESSION
		TEST OF SECTION 1
		INTRODUCTION TO NEIGHBOURHOOD, INTERIOR POINTS
SUNDAY - 19.12.2021		
11	**December (20-25)**	INTRODUCTION TO LIMIT POINT
		INTRODUCTION TO OPEN SETS
		THEOREM BASED ON LIMIT POINT
		THEOREM BASED ON OPEN SET
		THEOREM BASED ON INTERIOR POINT
Holiday -25.12.2021 - Christmas		
SUNDAY - 26.12.2021		
12	**December (27-31)**	CLOSED SETS,CLOSURE
		INTERIOR OF A SET,BOUNDARY POINTS
		THEOREM BASED UPON CLOSED SET
		THEOREM BASED UPON BOUNDARY POINT
		REVISION AND PROBLEMS
	January (1)	DERIVED SET
SUNDAY -02.01.2022		
13	**January (3-8)**	EXTERIOR OF A SETS
		THEOREM BASED UPON EXTERIOR SETS
		EXAMPLES
		EXERCISE 5.1
		SEQUENCES IN METRIC SPACES , CONVERGENCE IN A METRIC SPACE
		THEOREM BASED UPON SEQUENCES IN METRIC SPACES , CONVERGENCE IN A METRIC SPACE
SUNDAY - 09.01.2022		

14	January (10-15)	CAUCHY SEQUENCE , COMPLETE METRIC SPACE AND EXAMPLES
		THEOREM BASED UPON COMPLETE METRIC SPACES
		COMPLETENESS OF R
		CANTOR'S INTERSECTION THEOREM
		CONVERSE OF CANTOR'S INTERSECTION THEOREM
		NOWHERE DENSE SET , DEFINITION OF FIRST CATEGORY AND SECOND CATEGORY SPACE
SUNDAY - 16.01.2022		
15	January (17-22)	BAIRE 'S CATEGORY THEOREM
		CONTRACTION PRINCIPLE IN A METRIC SPACE
		FIXED POINT ,BANACH'S FIXED POINT THEOREM
		EXERCISE 6.1
		DOUBTS AND QUICK REVISION OF CHAPTER 6
		CLASS TEST
SUNDAY - 23.01.2022		
16	January (24-29)	TEST OF SECTION 2
		CONTINUOUS FUNCTION IN METRIC SPACES
		Holiday - 26.01.2022 - Republic day
		EXAMPLES, THEOREMS BASED UPON CONTINUITY IN METRIC SPACES
		UNIFORM CONTINUITY IN METRIC SPACES
		EXAMPLES BASED UPON U.C.
SUNDAY - 30.01.2022		
17	January(31)	ISOMETRY AND SOME MAPPINGS
	February(1-4)	EXAMPLES
		EXERCISE 7.1
		TEST CHAPTER 5 &6
		DEFINITIONS OF COVERS , EXAMPLES
Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	DEFINITIONS OF COVERS , EXAMPLES
		BOLZANO WEIERSTRASS PROPERTY (BWP)
		SEQENTIALLY COMPACT METRIC SPACE
		THEOREM BASED UPON SEQUENTIALLY COMPACT METRIC SPACE
		FINITE INTERSECTION PROPERTY (FIP)
		EPSILON NET AND TOTAL BOUNDEDNESS
SUNDAY - 13.02.2022		
19	February (14-19)	**EXERCISE 8.1**
		CONNECTED SETS,SEPARATED SETS ,DISCONNECTED SETS
		THEOREM BASED UPON SEPARATED SETS ,CONNECTED AND DISCONNECTED SETS
		THEOREM BASED UPON SEPARATED SETS ,CONNECTED AND DISCONNECTED SETS
		COMPONENTS
		CONTINUITY AND CONNECTEDNESS
SUNDAY - 20.02.2022		
20	February (21-22)	DOUBT CLEARING SESSION
		EXERCISE 9.1

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

Weekly Lesson Plan   UG (IIIrd   Semester)

Name of the Paper:--Computer Programming & Thermodynamics   class: b.sc-III

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

WEEK	DATE	TOPICS
1	October (6 - 9)	
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
	SUNDAY - 10.10.2021	
2	October (11-16)	Thermodynamic-1 : Thermodynamic system and Zeroth law of thermodynamics.
		First law of thermodynamics and its limitations
		Reversible and irreversible process.
		HOLIDAY - 15.10.2021 - DUSSEHRA
	SUNDAY - 17.10.2021	
3	October (18-23)	Second law of thermodynamics significance, Carnot theorem
		Absolute scale of temperature, Absolute Zero and magnitude of each division on work scale and perfect gas scale
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
	SUNDAY - 24.10.2021	
4	October (25 -30)	**Joule's free expansion, , Joule Thomson effect, Joule-Thomson (Porous plug) experiment, conclusions and explanation**
		Analytical treatment of Joule Thomson effect. Entropy
		calculations of entropy of reversible and irreversible processT-S diagram
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

5	November (8 -13)	entropy of a perfect gas
		Nernst heat law(third law of thermodynamics) Liquefaction of oxygen
		Liquefaction of hydrogen

SUNDAY - 14.11.2021

6	November (15 -20)	Liquefaction of helium
		Liquefaction of air
		Solidification of He below 4K, Cooling by adiabatic demagnetization
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti

SUNDAY - 21.11.2021

7	November (22-27)	THERMODYNAMICS-11 : Derivation of Clausius-Clapeyron and Clausius latent heat equation and their significance
		latent heat second equation
		Development of Maxwell thermodynamical relations,Thermodynamical

SUNDAY - 28.11.2021

8	November (29-30) December (1-4)	functions:Internal energy (U)Helmholtz function (F), Enthalpy (H),
		Gibbs function (G)
		Derivation of Maxwell thermodynamical relations from thermodynamical functions

SUNDAY - 5.12.2021

9	December (6-11)	**Application of Maxwell relations: relations between two specific heats of gas**
		Specific heat of saturated vapours,phase diagram and triple point of a substance
		Derivation of Clausius-Clapeyron and Clausius equation

SUNDAY - 12.12.2021	

10	December (13-18)	Variation of intrinsic energy with volume for (i) perfect gas (ii)Vanderwall gas (iii)solids and liquids
		Derivation of Stefans law
		Adiabatic compression and expention of gas

SUNDAY - 19.12.2021	

11	December (20-25)	Deduction of theory of Joule Thomson effect
		Numerical Problems

Holiday -25.12.2021 - Christmas	
SUNDAY - 26.12.2021	

12	December (27-31)	Computer Programming : Computer organization,
		Binary representation
		Algorithm development
	January (1)	

SUNDAY -02.01.2022	

13	January (3-8)	Flow charts and their interpretation.
		FORTRAN Preliminaries: Integer and floating point arithmeticexpression
		built in functions, executable and non-executable statements
		input and output statements

SUNDAY - 09.01.2022	

14	January (10-15)	Formats, IF statement
		DO statement and GO TO statement
		Conditional Test

| | SUNDAY - 16.01.2022 | |

15	January (17-22)	Dimension arrays,Statement function
		function subprogram.Application of Fortran Programming: Flow Chart
		and Programming for Print out of Natural numbers

| | SUNDAY - 23.01.2022 | |

16	January (24-29)	Range of the set of given numbers
		Ascending and descending order
		Holiday - 26.01.2022 - Republic day

| | SUNDAY - 30.01.2022 | |

17	January(31)	
	February(1-4)	Mean and standard deviation
		Least square fitting of curve,
		Roots of quadratic equation

| Holiday - 05.02.2022 - Vasant Panchami |
| SUNDAY - 6.02.2022 |

18	February (7-12)	**Product of two matrices**
		Numerical integration by Simpson 1/3 rule
		Numerical integration by Trapezoidal rule
		SUNDAY - 13.02.2022
19	February (14-19)	**Numerical problems**
		revision
		revision
		SUNDAY - 20.02.2022
20	February (21-22)	**revision**
		revision

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

Weekly Lesson Plan (Odd Semester)   (Vth Semester)

Name of the Paper:-   Nuclear Physics   Class: B.Sc III

WEEK	DATE	TOPICS
Name of the Teachers (Section wise): Ms. Sonia		
1	**October (11-16)**	Nuclear Structure and Properties of Nuclei: Nuclear composition
		Nuclear properties : Nuclear size , spin, parity, statistics
		HOLIDAY - 15.10.2021 - DUSSEHRA
	SUNDAY - 17.10.2021	
2	**October (18-23)**	magnetic dipole moment
		quadrupole moment (shape concept)
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
		Determination of mass by Bain-Bridge ,Bain-Bridge and Jordan mass spectrograph
	SUNDAY - 24.10.2021	
3	**October (25 -30)**	Determination of charge by Mosley Law
		Determination of size of nuclie by Rutherford Back
		Scattering,binding energy,systematics of nuclear binding energy,nuclear stability
		Numericals
	VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK	

4	**November (8 -13)**	**Nuclear Radiation decay Processes:**
		alpha-disintegration and it's theory,
		Energetics of alpha-decay
		Origin of Continuous beta spectrum (neutrino hypothesis)

	SUNDAY - 14.11.2021	

5	**November (15 -20)**	types of beta decay and energetics of Beta-decay
		Nature of Gamma Rays ,Energetics of Gamma-Rays
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti

	SUNDAY - 21.11.2021	

6	**November (22-27)**	numericals
		Interaction of heavy charged particles (Alpha particles)
		Energy loss of heavy charged particle (idea of Bethe
		formula, no derivation)

	SUNDAY - 28.11.2021	

7	**November (29-30) December (1-4)**	Range and straggling of alpha particles
		Geiger-nuttal law
		Interaction of light charged particles (Beta-particles)

	SUNDAY - 5.12.2021	

8	**December (6-11)**	numericals, Energy loss of Beta particles
		range of electrons
		absorption of beta-particles

	SUNDAY - 12.12.2021	

9	**December (13-18)**	Interaction of Gamma rays , Passage of Gamma radiations
		through matter (photoelectric effect, Compton effect,
		Pair production effect)

SUNDAY - 19.12.2021

10	**December (20-25)**	numericals
		electron-positron annihilation
		absorption of Gamma rays

Holiday -25.12.2021 - Christmas

SUNDAY - 26.12.2021

11	**December (27-31) January (1)**	(Mass attenuation Coefficient) and its application
		Nuclear Accelerators
		Linear accelerator

SUNDAY -02.01.2022

12	**January (3-8)**	Tandom accelerator
		cyclotron
		Conditional test

HOLIDAY - 09.01.2022 - Guru Gobind Singh Jayanti

13	**January (10-15)**	Betatron accelerators
		Nuclear Radiation Detectors : Gas filled counters,
		Ionization Chambers , Proportional counter

SUNDAY - 16.01.2022

14	**January (17-22)**	G.M counter
		Scintillation counter
		semiconductor detector

SUNDAY - 23.01.2022

15	**January (24--25)**	Nuclear Reactions,Elastic Scattering , inelastic scattering
		Nuclear disintegration , photonuclear reaction
		Problems

SUNDAY - 30.01.2022

16	**January (31)February(1-5)**	Radiative Capture , Direct reaction
		Heavy Ion reactions and spallation
		Conservation laws, Q-value
		HOLIDAY - 05.02.2022 - Vasant Panchami
	SUNDAY - 06.02.2022	

17	**February(7-12)**	Reaction threshold
		Nuclear reactors , General aspects of Reactor Design
		Nuclear fission and fusion reactor
	SUNDAY - 13.02.2022	
18	**February(14-19)**	Revision
		Revision
		Revision
	SUNDAY - 20.02.2022	
19	**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 (Vth Semester)

Name of the Paper:- Quantum and Laser Physics　　　Class: B.Sc III

Name of the Teachers (Section wise): Garima Tarika

WEEK	DATE	TOPICS
1	October (6 - 9)	Overview, scale of quantum physics
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
	SUNDAY - 10.10.2021	
2	October (11-16)	boundary between classical and quantum phenomena
		Photon, Photoelectric effect
		HOLIDAY - 15.10.2021 - DUSSEHRA
	SUNDAY - 17.10.2021	
3	October (18-23)	Compton effect (theory and result)
		FrankHertz experiment
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
	SUNDAY - 24.10.2021	
4	October (25 -30)	de-Broglie hypothesis. Davisson and Germer experiment
		G.P.Thomson experiment
		Phase velocity, group velocity and their relation
	VACATIONS: 31.10.2021 to 07.11.2021　- DIWALI BREAK	

5	**November (8 -13)**	Numericals
		Heisenberg's uncertainty principle
		Numericals
SUNDAY - 14.11.2021		
6	**November (15 -20)**	Time energy and angular momentum, position uncertainty.
		Uncertainty principle from de Broglie wave. (Wave-particle duality)
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti
SUNDAY - 21.11.2021		
7	**November (22-27)**	Gamma Ray Microscope
		Electron diffraction from a slit
		Numericals
SUNDAY - 28.11.2021		
8	**November (29-30) December (1-4)**	Derivation of 1-D time-dependent Schrodinger wave equation
		(subject to force, free particle)
		Numericals
SUNDAY - 5.12.2021		

9	**December (6-11)**	Time-independent Schrodinger wave equation
		eigen values, eigen functions
		Numericals
SUNDAY - 12.12.2021		
10	**December (13-18)**	wave functions and its significance
		Orthogonality and Normalization of function
		Numericals
SUNDAY - 19.12.2021		
11	**December (20-25)**	concept of observer and operator
		Expectation values of dynamical quantities
		Numericals
	Holiday -25.12.2021 - Christmas	
SUNDAY - 26.12.2021		
12	**December (27-31)**	probability current density
		Numericals
	January (1)	
SUNDAY -02.01.2022		
13	**January (3-8)**	Conditional Test
		Unit II: Application of Schrodinger wave equation:
		(i) Free particle in one-dimensional box
		(ii) One dimensional step potential E > Vo (Reflection and Transmission coefficient)
SUNDAY - 09.01.2022		

14	January (10-15)	(iii) One dimensional step potential E < Vo (penetration depth calculation).
		(iv) One dimensional potential barrier, E > Vo (Reflection and Transmission coefficient)
		(v) One-dimensional potential barrier, E < Vo

SUNDAY - 16.01.2022		
15	January (17-22)	(vi) Solution of Schrodinger equation for harmonic oscillator
		Numericals
		Unit III: Laser Physics –I Absorption and emission of radiation
		Main features of a laser: Directionality, high intensity

SUNDAY - 23.01.2022		
16	January (24-29)	high degree of coherence, spatial and temporal coherence
		Einstein's coefficients and possibility of amplification
		Holiday - 26.01.2022 - Republic day

SUNDAY - 30.01.2022		
17	January(31)	momentum transfer, life time of a level, kinetics of optical absorption
	February(1-4)	population inversion: A necessary condition for light amplification
		resonance cavity, laser pumping

Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		
18	February (7-12)	Threshold condition for laser emission
		line broadening mechanism, homogeneous and inhomogeneous line broadening
		Unit IV: Laser Physics – II He-Ne laser
		RUBY laser (Principle, Construction and working)

		SUNDAY - 13.02.2022
19	February (14-19)	Optical properties of semiconductor
		Semiconductor laser
		Applications of lasers in the field of medicine and industry
		Revision

		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　(Vth　Semester)

Name of the Paper:-　Environmental Biology　　Class: B.Sc. Vth Semester (Zoology)

Name of the Teachers (Section wise): Pawan Kumar

WEEK	DATE	TOPICS
1	October (6 - 9)	Basic concepts of ecology
		HOLIDAY - 07.10.2021 - Maharaja Agarsen Jayanti
	SUNDAY - 10.10.2021	
2	October (11-16)	Basic concepts of ecology
		Basic concepts of ecology
		Basic concepts of ecology
		HOLIDAY - 15.10.2021 - DUSSEHRA
	SUNDAY - 17.10.2021	
3	October (18-23)	Basic concepts of ecology
		Basic concepts of ecology
		Holiday - 20.10.2021 - Maharishi Valmiki Jayanti
	SUNDAY - 24.10.2021	
4	October (25 -30)	**Basic concepts of ecology**
		Factors affecting environment
		Factors affecting environment
VACATIONS: 31.10.2021 to 07.11.2021 - DIWALI BREAK		

5	November (8 -13)	Factors affecting environment		
		Factors affecting environment		
		Factors affecting environment		

| | SUNDAY - 14.11.2021 | | | |

6	November (15 -20)	Factors affecting environment		
		Factors affecting environment		
		Factors affecting environment		
		Holiday -19.11.2021 - Guru Nanak Dev Jayanti		

| | SUNDAY - 21.11.2021 | | | |

7	November (22-27)	Factors affecting environment		
		Factors affecting environment		
		Class Test		

| | SUNDAY - 28.11.2021 | | | |

8	November (29-30) December (1-4)	Introduction to major ecosystemt of the world.		
		Introduction to major ecosystemt of the world.		
		Introduction to major ecosystemt of the world.		

| | SUNDAY - 5.12.2021 | | | |

9	December (6-11)	**Ecosysytem**			
		Ecosysytem			
		Ecosysytem			

SUNDAY - 12.12.2021

10	December (13-18)	Ecosysytem			
		Ecosysytem			
		Assignment			

SUNDAY - 19.12.2021

11	December (20-25)	Biogeochemical cycles			
		Biogeochemical cycles			
		Biogeochemical cycles			

Holiday -25.12.2021 - Christmas

SUNDAY - 26.12.2021

12	December (27-31)	Biogeochemical cycles			
		Biogeochemical cycles			
		Class Test			
	January (1)				

SUNDAY -02.01.2022

13	January (3-8)	Population			
		Population			
		Concept of biodiversity			

SUNDAY - 09.01.2022

14	January (10-15)	Concept of biodiversity
		Concept of biodiversity
		Concept of biodiversity

	SUNDAY - 16.01.2022	

15	January (17-22)	Concept of biodiversity
		Concept of biodiversity
		Class Test

	SUNDAY - 23.01.2022	

16	January (24-29)	Migration in fishes and birds
		Migration in fishes and birds
		Holiday - 26.01.2022 - Republic day

	SUNDAY - 30.01.2022	

14	January(31)	Migration in fishes and birds
	February(1-4)	Parental care in animals
		Parental care in animals

Holiday - 05.02.2022 - Vasant Panchami		
SUNDAY - 6.02.2022		

15	February (7-12)	Population interactions
		Population interactions
		Population interactions

	SUNDAY - 13.02.2022	

16	February (14-19)	Environmental Pollution
		Environmental Pollution
		Environmental Pollution
		SUNDAY - 20.02.2022
17	February (21-22)	Revision
		Revision