

Academic Session: 2023 - 24 ; Semester : EVEN

Name of the Faculty : Balwinder Kaur, Deptt. of Computer Science & Applications

Class, Subject	Month, Week	Topics/Chapters to be covered	Academic Activities to be organised	Assignments/ Tests to be given to the students
BCA - III Computer Graphics	Jan week-1	Interactive & Passive Graphics, Applications of Graphics, Input devices, Output Devices, CRT, Refresh Rate, Interlacing Bitplane, Color Depth; Palette	NIL	NIL
	Jan week-2	Bitplane, Color Depth; Palette, Color CRT, DVSt : Direct View Storage Tube, Flat Panels & Plasma Panels, LED & LCD	NIL	NIL
	Jan week-3	Lookup Table, Display Processor, Graphics Sotwares. Co-ordinates, point plotting	Practice of Objective Questions	Assignment - 1
	Jan week-4	Scan Conversion, Drawing Straight Line , DDA Algo of Line Drawing, Bresenham's Algo of Line Drawing		
	Feb week-1	Circle Scan Conversion using Polar Co-ordinates, Bresenham's Algo of Circle Drawing, Ellipse Drawing Algo	NIL	NIL
	Feb week-2	Trigonometric Scan Conversion , Polygon Area Filling, Scan - line fill Algo, Flood Fill Algo	On the spot Large Question Writing	Assignment - 2
	Feb week-3	2D Graphics transformations : Translation, Rotation, Scaling	NIL	NIL
	Feb week-4	Matrix Representation, Homogenous Co-ordinates, Reflection & Shearing	NIL	NIL
	March week-1	Composite Transformations, Inverse Transformation, Affine Transformation	NIL	NIL
	March week-2	Raster Transformation, Pointing & Positioning Devices & Techniques	ASSESSIONAL TEST	
	March week-3	2D Viewing : Windows & Viewport	Recapitulation	
	March week-4	Clipping : Point, Line, Cohen Sutherland Midpoint Subdivision Polygon	Doubt Clearance	
	April week-1	Sutherland Hodgman Polygon, 3D Display Methods	Repitition (if required)	
	April week-2	3D Transformations : Rotation, Scaling, Composite	Old Question Papers Solving	

Govt P.O. College Sector-1 Panchkula

Lesson Plan Summary

Class: Subject Teacher's Name	Month	Week	TOPICS/Chapters to be covered	Academic Activities to be organized	Topic of Assignments Test to be given to the student
BCA -III Internet Technologies MANJEET KAUR Session 2023-24	January	1st Week	Introduction; History; Internet Services; TCP/IP: Architecture, Layers, Protocols; TCP/IP model versus OSI Model	1. Brainstorming on History of internet and internet	Assignment 1: Application Layer: Electronic Mail: Architecture; Protocols - SMTP, MIME, POP, IMAP; Web Based Mail;
		2nd Week	World Wide Web (WWW), Creating and Searching Information on the Web, Popular Search Engines, URL, HTTP		
		3rd Week	Web Browsers, Chat & Bulletin Board, USENET & NNTP (Network News Transfer Protocol); Internet vs. Intranet;		
	4th Week	TCP, UDP and IP Protocols, Port Numbers; Format of TCP, UDP and IP; IPv4 addressing; IPv6 addressing and packet format	2. Brainstorming on different Web Browsers, Search Engine	NIL	
	February	5th Week	TCP Services; TCP Connection Management; Remote Procedure Call; IP Address Resolution- DNS; Domain Name Space; DNS Mapping; Recursive and Iterative Resolution;		3. GD on different Application Layer protocols
		6th Week	Mapping Internet Addresses to Physical Addresses: ARP, RARP, DHCP; ICMP; IGMP;		
	March	7th Week	Application Layer: Electronic Mail: Architecture; Protocols - SMTP, MIME, POP, IMAP; Web Based Mail;		4. Debate on
		8th Week	File Access and Transfer: FTP, Anonymous FTP, TFTP, NFS; Remote Login using TELNET;		
		9th Week	Voice and Video over IP: RTP, RTCP, IP Telephony and Signaling, RSVP;		
	10th Week	Routing in Internet: RIP, OSPF, BGP;			

	April	11th Week	Internet Multicasting; Mobile IP; Private Network Interconnection: Network Address Translation (NAT), Virtual Private Network (VPN)	different Social sites security issues, Network security issues	
		12th Week			
		13th Week	Internet Management and SNMP; Internet Security: E-Mail Security; Web Security; Firewall; Introduction to IPSec and SSL;	NIL	Class Test: Class test on different Routing algorithms
		14th Week	Revision		
		15th Week	Revision		
		16th Week	Revision		
			Old Question Papers Solving		

Lesson Plan Summary

Govt. P. G. College Sector - 1 Panchkula
 Session - 2023-2024

PGDCA

Class: Subject Teacher's Name	MONTH	TOPICS/Chapters to be covered	Academic Activities to be organized	Topic of Assignments Test to be given to the student
Data Structure MANJEET KAUR	1st week	Introduction to Data Structures: Elementary data organization	1. Brainstorming on different Data Structures	Assignment 1: Explain Types of Data structure Recursion
	2nd week	Data structure operations, Algorithm complexity and time-space tradeoff,		
	3rd week	Classification of data structures.		
	4th week	String Processing: Storing strings, String operations, Pattern matching algorithms	NIL	
	5th week	Arrays: Linear arrays, Operations on arrays, Multidimensional arrays, Storage of arrays, Matrices. Sparse		
	6th week	Linked Lists: Representation of linked list in memory, Traversal, Searching, Insertion, Deletion,	2. GD on different Queue methods	Assignment 2: Explain Functions of graphs
	7th week	Sorted Linked List, Header List, Two - Way List;		
	8th week	Stacks	3. Brainstorming on Different Control structures	
	9th week	Linked and Array representation of Queues		
	10th week	Dequeues		
	11th week	Priority Queues		

12th week	Operations on stacks and queues.	NIL	Class Test: Class test on link list
13th week	Applications of stacks: Recursion, Polish Notation, Quicksort.		
14th week	Trees: Binary Trees, Representation of binary trees in memory, Threaded Binary Trees, Balanced Tree, Different tree traversal algorithms.	NIL	
15th week	Binary Search Tree: Searching, Insertion, and deletion in a Binary search tree, Heap Sort.		
16th week	Representation of Graphs and Applications: Adjacency Matrix, Path Matrix, Warshall's Algorithm, Linked Representation of a Graph, Traversing a Graph;	Old Question Papers Solving	
17 week	Sorting and Searching: Radix Sort, Merge Sort, Linear Search, Binary Search, Insertion Sort, Selection Sort, Bubble Sort		
18-26 week	Revision of Syllabus		

Teacher Name: Mr.Rajnish Sood

Subject: - E-Commerce Class -BCA 4th Sem Sec. A and B

Month	Week	Topics
Jan-24	1st Week	E Commerce Business Opreations E CommerceVs Traditional Business Practices
	2nd Week	Concept of B2B, B2C C2C B2G G2B G2H
	3rd Week	Elements Principles Benefits and limitation of E Commerce
	4th Week	Management related issues to E Com. Credit Card Transactions
	5th Week	SHTP SET and E Payments
feb	1st Week	Applications in goverence EDI in Goverence
	2nd Week	E Goverence E goverence Applications Concept of B to G and G to B Citizen to Govt.
	3rd Week	E Goverence Models Private sector interfafe in E Goverence Applications in B to C
	4th Week	Consumer Shopping procedure on internet impact on disinter mediation and re-intermedition Global Mkt strategy and traditional departmental stores
March	1st Week	Assignment on first two units
	2nd Week	Products in b2c model success factors in e brokers broker based service online
	3rd Week	Online travle tourism benefits and impact of e commerce on travle ind.
	4th Week	Dealer estate mkt. online stock trading and its benefits online financial services their future e auctions benefits implimentations and its impacts
April	1st Week	Applications in B2B key technologies in B2B
	2nd Week	Architectoral models of B2b Chraacteristics of suplier oriented market place buyer oriented and inermidiatry marketplace
	3th Week	Just in time delivery in B2B internet based EDI from trad.EDI Mkt issues in B2B
	4th week	Emerging business models retail ,Media , Advisory, made to order Manufacturing do it yourself information sevice model imerging hybrid model internet and E commerce scenario in India internet security issues legal aspecte of e commerce

Class- PGDCA(2023-24)

Subject - Database Management System Teacher's Name- Ms. Shailja Kumari

August

Introduction-Data, Information and Knowledge – Limitations of Manual Data Processing
Advantages of databases, Role of DBA, Data Manager, File Manager and Disk Manager.

September

Three Level Architecture of DBMS- Physical and Logical Data Independence, Database languages and Interfaces,

October

DBMS functions and component modules

November

Entity Relationship Model- Concepts, Relationships, Constraints, Keys- Primary, Secondary, Composite & Foreign Key etc.

December

E-R Diagrams, Mapping ER- diagrams to Relational Tables, Inventory System, Payroll System, Reservation System, Online Book Store etc. Introduction to Data Models, Comparison between Hierarchical, Network and Relational models.

January

Relational Algebra- Query Language, Basic Set Operations, Special Relational Operations, Introduction to SQL: DDL, DML, and DCL Commands, Views & Queries in SQL, Specifying Constraints & Indexes in SQL.

February

Functional Dependencies, Normalization- Normal forms based on primary keys (1 NF, 2 NF, 3 NF, & BCNF)

March

MS Access: Parts of an Access Window, ToolBars and Their Icons, Creating a New Database.

April

Creating a Database through Table Wizard, Creating a New Table, Relationships, Creating Table through Design View Relationship, Query, Forms, Reports, Import/export tables etc.

May

Presentation & Revision Work- Solve Previous year paper.
Revision Work- Solve Previous year paper.

LESSON PLAN

Name of the College		Govt. PG College Sector - 1, Panchkula
Name of the Department		Computer Science
Seassion		2024, Even Semester
Sub:- Management Information System		Name of Teacher :- Mrs Saroj Rani <i>BCA 4th</i>
Month	Week	Topic
January	Week 1	Introduction to system, Basic Concept , Types of Systems, Systems Approches, Information System
	Week 2	Definition & Characteristics. Types of Information , Role of Information In Deciosion Making
	Week 3	Sub System of An Information System EDP and MIS Management levles First assignment Queries
	Week 4	Overview of Management Information System :- Defination and Characteristics , Components of MIS . Frame Work for Understanding MIS. Class Test
February	Week 1	nformation Requirements & Levels of Mnagement , Micro level Informaton Macro Level Information. Simons Model of Decision Making . Group Discussion
	Week 2	Structured VS UN-Structured Decisions , Formal VS Informal Systems. Developing
	Week 3	. Developing Information System, Analysis & Design of Information system.
	Week 4	mplementation & Evaluagion , pitfalls in MIS Development. Functional MIS.
March	Week 1	Assigmnet 2 Financial and production MIS. Introductoon of E.Business, Cost /Benefit Anylasis
	Week 2	E-commerce Technology, Applications. CBIS in Business
	Week 3	Decision Support System, Support system for Planning , Transaction Processing System .
	Week 4	HOLI VACCATION
April	Week 1	Control Decision Making, Deiosion Support system for Government Oranization.
	Week 2	Revision of First Unit
	Week 3	Revision of 2nd and 3rd unit Class test Full Syllabus
	Week 4	Revision of Full Syllabus

8

LESSON PLAN

Name of the College		Govt. PG College Sector - 1, Panchkula
Name of the Department		Computer Science
Seassion		2024, Even Semester
Sub:- Web Designing Using Advance Tools		Name of Teacher :- Mrs Saroj Rani <i>BcA CA Sem</i>
Month	Week	Topic
January	Week 1	Introduction Java script, Features, Data types, Operators, Statement, Function, Event Handling
	Week 2	Objects and Methods, Frames, Windows, Tables, Images, Topics of First Assignment
	Week 3	Introduction of VBScript, Features, Variables, Data Types, Numeric and Literal Constants, Array, Class test
	Week 4	Operators, Subroutine Procedures, Function Procedure, Control Statement Problem Solving
February	Week 1	Strings, Message and Input Boxes, Date and Time, Event Handling Embedding VBScript in HTML
	Week 2	Active Script Pages Introduction, Features, Client-Server Model, Decision Control statement, Objects Of ASP, Technique of connecting to Database
	Week 3	Macromedia Flash, Macromedia Dreamweaver, PHP, Revision
	Week 4	DHTML Introduction, Features, Events, Dynamic Positioning, Layer object, Dynamic and inline styles, Event Handling, Basic Concept of (css) Cascading Style sheet Topic of 2nd assignment
March	Week 1	Create Style sheets, common task with (CSS), Margins, Links, Tables, colors, Marquee, Mouseovers.
	Week 2	Filter and Transitions, Adding links, Fonts, Text, Adding Tables, Adding forms. Handles problems
	Week 3	forms, Adding, Image and sound, use of CSS in HTML Document, Document Links, and Embedding of CSS in HTML document
	Week 4	HOLI VACCAATION
April	Week 1	Microsoft Front Page Introduction, Features, Title Bar, Menu Bar, Tool Bar, Style FrontFace and Formating Bar, Scroll Bar
	Week 2	XML Introduction, Features, XML Support and Usages Structure of XML Document, creating Document Class Test
	Week 3	Type Declaration, Flow Object, Working With text, Font, Color Background Properties. Revised unit 4
	Week 4	Revision of Full Syllabus

85

Lesson Plan

Subject: MIS(Management Information System)

Name of teacher :Anshu Kapil

January2024.

Topic

Week I: Introduction to system and Basic System Concepts, Types of Systems, The Systems Approach, Information System

Week II: Definition & Characteristics, Types of information, Role of Information in DecisionMaking,

Week III : Sub-Systems of an Information system

Week IV: EDP and MIS management levels, EDP/MIS/DSS.

February 2024

Week I An overview of Management Information System: Definition & Characteristics, Components of MIS

Week II Frame Work for Understanding MIS: Information requirements & Levels of Management,

Week III Simon's Model of decision-Making

Week IV Structured Vs Un-structured decisions, Formal vs. Informal systems. One Assignment done in Class.

March 2024

Week I Developing Information Systems: Analysis & Design of Information Systems:

Week II Implementation & Evaluation, Pitfalls in MIS Development.(Representations)

WeekIII Functional MIS: A Study of Personnel, Financial and production MIS

WeekIV Introduction to e-business systems,

April 2024

Week I Ecommerce – technologies, applications

Week II Decision support systems – support systems for planning. Assignment done in Class

Week III All systems in detail MIS support framework

Week IV Practical approach MIS uses

May 2024

Week I :Revision

Week II Revision

Teacher Name: Dr. Vandana Chauhan

Subject: - Advance programming in Visual Basic.

Class -BCA 6th Sem

Month	Week	Topics
January	1st Week	Collections: Adding
	2nd Week	Collections: Adding, Removing, Counting, Returning Items in a Collection, Processing a Collection
	3rd Week	Working with Forms: Form Properties, Creating, Adding, Removing Forms in Project, Adding Multiple Forms,
	4th Week	Managing Forms at Run Time, Hiding & Showing Forms, Load & Unload Statements, Drag and Drop Operation,
	5th Week	Activate & Deactivate events, Form-load event, Example using Forms, Programs in VB using Forms
February	1st Week	Working with Menu: Menu Designing in VB, Adding a Menu to a Form, Modifying and Deleting Menu Items
	2nd Week	Adding Access Characters, Adding Shortcut Keys, Manipulating Menus using Common Dialog Box, Attaching Code to Events, Creating Submenus,
	3rd Week	Dynamic Menu Appearance Advanced Controls in VB: Scroll Bar, Slider Control, Tree View, List View,
	4th Week	Rich Text Box Control, Toolbar, Status Bar, Progress Bar, Cool bar,
	5th Week	Image List Program Development in VB using Menus and Advance Controls
March	1st Week	File Handling & File Controls: Sequential files
	2nd Week	File Handling & File Controls: Random files
	3rd Week	Opening and Closing Data Files, Viewing the Data in a File, Performing Operations on a File, Creating a Sequential Data File,
	4th Week	Writing Data to a Sequential File, Reading the Data in a Sequential File, Finding the End of a Data File,
	5th Week	Locating a File, Reading and Writing a Random File (get, put, LOF, seek). Working with Graphics: Using Paint, Line, Circle
April	1st Week	Manipulating Graphics Program Development in VB using Files and Graphics
	2nd Week	Accessing Databases: Data Controls, Data-Bound Controls, DAO
	3rd Week	Accessing Databases: Data Controls, Data-Bound Controls, ADO,
	4th Week	Accessing Databases: Data Controls, Data-Bound Controls, RDO
	5th Week	Revision and class test
May	1st Week	Creating the Database, Setting Properties, Applying Operations on Database, Viewing the Database,
	2nd Week	Updating the Database (adding, deleting records) Program Development in VB using Database and Advance Controls
	3rd Week	Revision and class test

Teacher Name: Dr. Vandana Chauhan

Subject : Relational Data Base Management System

Class: B.sc 6th sem

January 2024

Relational Model Concepts, Codd's Rules for Relational Model, Hierarchical Data Model- Introduction, Features, Components, Example, Network Data Model- Introduction, Features, Components, Example, Differences between Hierarchical Data Model and Network Data Model Comparison of Relational Data Model with Hierarchical Data Model and Network Data Model

February 2024

Relational Algebra:-Selection and Projection, Set Operation, Join and Division.
Relational Calculus: Tuple Relational Calculus and Domain Relational Calculus.
Functional Dependencies and Normalization -- Purpose, Data Redundancy, Update Anomalies, Partial/Fully Functional Dependencies, Transitive Functional Dependencies, Assignment-1

March 2024

Characteristics of Functional Dependencies, Decomposition and Normal Forms (1NF, 2NF, 3NF & BCNF),SQL: Data Definition and data types, Create Table, Insert Data, Viewing Data, Filtering Table Data, Sorting data, Creating Table from a Table, Destroy table, Update, View, Delete, Assignment-2 and class test

April 2024

Join, Concatenating data from Table Specifying Constraints in SQL; Primary Key, Foreign Key, Unique Key, Check Constraint, Using Functions,PL/SQL-Introduction, Advantages of PL/SQL The Generic PL/SQL Block: PL/SQL Execution Environment; PL/SQL Character Set and Data Types, Class test

May 2024

Declaration and Assignment of Variables
Control Structure in PL/SQL: Conditional Control, Iterative Control, Sequential Control, Revision

Teacher Name: Dr. Vandana Chauhan

Subject : Computer Networks

Class: B.sc 6th sem

January 2024

Introduction to Data Communication and Computer Networks; Uses of Computer Networks; Types of Computer Networks and their Topologies; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways; Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services;

February 2024

OSI Reference Model; TCP/IP Model; Analog and Digital Communications Concepts: Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Modems and modulation techniques; Assignment-1 and class test

March 2024

Data Link Layer Design issues; Error Detection and Correction methods; Sliding Window Protocols: One-bit, Go Back N and Selective Repeat; Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols; Introduction to LAN technologies: Ethernet, Switched Ethernet, Fast Ethernet, Assignment-2 and class test

April 2024

Gigabit Ethernet; Token Ring; Introduction to Wireless LANs and Bluetooth; Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing; Congestion Control, Class test and Revision

May 2024

Traffic shaping; Choke packets; Load shedding; Application Layer: Introduction to DNS, E-Mail and WWW services; Network Security Issues: Security attacks; Encryption methods; Firewalls; Digital Signatures; Revision



LESSON PLAN

DEPARTMENT OF HOME SCIENCE
SESSION 2023-24

CLASS - B.A VI SEMESTER

NAME OF THE PAPER - HUMAN DEVELOPMENT

MONTH	WEEK	TOPICS TO BE COVERED
JAN	Week I	CHILD PSYCHOLOGY
	Week II	CHILD PSYCHOLOGY
	Week III	LEARNING
	Week III	LEARNING
FEB	Week IV	INTELLIGENCE / TEST
	Week I	INTELLIGENCE
	Week II	VACATIONS
	Week III	PERSONALITY
MARCH	Week IV	PLAY / TEST
	Week I	STAGES OF DEVELOPMENT
	Week II	STAGES OF DEVELOPMENT
	Week III	THE EXPECTANT MOTHER
APRIL	Week IV	THE EXPECTANT MOTHER
	Week I	CARE OF NEW BORN
	Week II	FEEDING AN INFANT
	Week III	FEEDING AN INFANT
	Week IV	COMMON AILMENTS OF CHILDHOOD
		Revision Test

V-sharma

(Vandita Sharma)
Department of Home Science

LESSON PLAN

DEPARTMENT OF HOME SCIENCE
SESSION 2023-24

CLASS - B.A. IV SEMESTER
NAME OF THE PAPER - TEXTILE AND CLOTHING

MONTH	WEEK	TOPICS TO BE COVERED
JAN	Week I	Traditional Textiles
	Week II	Traditional Textiles
	Week III	Fiber - Types Classification
	Week IV	Cotton
FEB	Week I	Silk
	Week II	Polyster
	Week III	Rayon
	Week IV	Soaps
MARCH	Week I	Detergents
	Week II	Starches /Blues/ Bleaches
	Week III	Starches /Blues/ Bleaches
	Week IV	Finishes
APRIL	Week I	Finishes Type
	Week II	Weaves
	Week III	Laundry Reagent
	Week IV	Laundry Reagents
		Stain Removal
		Revision/ Test

V → ds
(Vandita Sharma)
Department of Home Science

Lesson Plan.
BA 6th Semester

(Geography Dept.)
- Prof. Sarita

Date	Theory	Practical
Jan 1-4	Introduction to Aerial Photographs	Introduction to Aerial photographs
Jan 6-11	Aerial photographs (their advantages and types)	Demarcation of Principal Point
Jan 13-18	Elements of Aerial Photo Interpretation	Flight line
Jan 20-25	Basic of Remote sensing technology (Electromagnetic Spectrum, sensors)	Conjugate Principle Point.
Jan 27 Feb 13	Platforms, resolution and types of remote Sensing	Demarcation of F.M.
Feb 14-18	Development of Remote sensing technology	Stereoscope
Feb 20-25 18-22	Types of Imageries and its use in Natural resources management India	Lens Stereoscope

Feb 22-21	Introduction to GIS: definition and purposes	Mirror Stereoscope
March 1-8	Advantages and software and hardware requirements of GIS	Introduction to Survey
March 10-15	Application of GIS in various fields of geography.	Socio Economic Survey.
March 17-22	Measures of Central Tendency : Mean, Median and Mode	Planning and Stage of Survey
March 24-29 April - 4	Measure of Dispersion : Range, Quartile deviation	Report Writing
April 4-7	Mean deviation and Standard deviation	Identification of features on (RSID, LISS, Imagery)
April 8-13	Coefficient of variation	
April 15-31	Revision	

LESSON PLAN

DEPTT OF SOCIOLOGY SUBJECT: SOCIAL PROBLEMS IN INDIA SESSION: 2023-24 (Sem-IV)

MONTH	WEEK	TOPIC
JAN	1	Meaning and Definition of social problems, Nature of social problems, causes of social problem and Importance of the Study of Social Problems
	2	Sociological Perspectives on Social Problem-Anomie (Durkheim) : Its definitions, characteristics and criticism
	3	Differential Association (Sutherland) its meaning and subconstitutes
	4	Concept of labelling theory, its origin and development
	5	Revision and test
FEB	1	Inequality of Caste, Class and Gender; meaning , definitions and characteristics of caste, meaning of untouchability and casteism, caste and politics in India
	2	Meaning definitions and characteristics of social class, basis of class formation, distinction between caste and class,
	3	Gender based enequality, its meaning nas types of gender inequality and Ethnicity; Communalism and women empowerment
	4	Problems of minorities in india, categories of minorities, welfare of minorities and constitutional provisions for minorities
	5	Revision and test
MARCH	1	Meaning and causes of Female Foeticide and initiative taken by the Govt
	2	Meaning definitions and causes of Dowry, Dowry deaths, Demerits of dowry
	3	Meaning and causes of Domestic violence, menace of domestic violence Meaning definitions and causes of divorce, Divorce in various minorities groups.
	4	Meaning definitions of old aged, their problems and welfare, suggestions for old aged.
	5	Revision and tests
APRIL	1	Meaning and definition, causes and consequences of divorce, divorce in various ehtnic group
	2	Definitions and types of Crime, crime in India and its causes, crime control . Prostitution its meaning nature types and causes.

	3	Meaning and definitions of juvenile delinquency, causes and control of juvenile delinquency. Suicide, meaning definition, causes and theory
	4	Corruption definition, causes, control and remedy. Drug addition its meaning, definition proces and causes. Meaning, causes, cure and consequences of AIDS

Siddhant

LESSON PLAN

DEPTT OF SOCIOLOGY SUBJECT: SOCIAL PROBLEMS IN INDIA SESSION: 2023-24 (Sem-IV)

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	4	Concept of labelling theory, its origin and development
	5	Revision and test
FEB	1	Inequality of Caste, Class and Gender; meaning , definitions and characteristics of caste, meaning of untouchability and casteism, caste and politics in India
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	5	Revision and tests
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3	Meaning and definitions of juvenile delinquency, causes and control of juvenile delinquency. Suicide, meaning definition, causes and theory
4	Corruption definition, causes, control and remedy. Drug addition its meaning, definition proces and causes. Meaning, causes, cure and consequences of AIDS

Sushada

Govt. P.G. College, Sector-1, Panchkula.

TIME TABLE – HISTORY
Session 2023 -24
Even Semester

TEACHER	I	II	III	IV	V	Total Lecture	Signature
Dr. Aprajita		M.A.(Final) (1-2,5-6)R - 8 B.A.I (3-4)R-6	M.A.(Final) (3-6)R - 8 B.A.I Minor (1-2)R-8	B.A.I (1-2) R-6	M.A.(Pre.) (1-6). R - 8	20	<i>Aprajita</i>
Dr. B.S. Balhara	B.A.II (1-2) R-9 MDC (5-6) R-9	M.A.(Pre.) (3-6). R - 9	M.A.(Pre.) (3-6). R - 9 B.A.II (1-2)R-11		M.A.(Final). (1-6) R - 9	20	<i>B.S. Balhara</i>

Aprajita
(HOD)
History Dept.

Gout. P.G. College, Sector-1, PanchKula

HISTORY. Dept.

Session 2023-24
Lesson Plan
M.A. (Final) 4th Semester
Republic of India 1947 - 1964
Paper – XXIX

Unit	Topic/Chapter to be covered	Month	Week
Unit – I	Independence, Partition and Rehabilitation of the displaced people	January	1st
	Making of the Republican Constitution and its Characteristics		2nd
	Problem of Kashmir		3rd
	Integration of Princely States		4th
	Linguistic Reorganisation of States		4th
Unit – II	Economic Planning, Social Legislation	February	1st
	Hindu Code Bill and its Corollary Acts		2nd
	Law for Scheduled Castes and Scheduled Tribes		3rd
	Socio- Economic change in Urban and Rural India		4th
Unit – III	Foreign Policy - India and the Non - Aligned Movement	March	1st
	Indo - Pak Relations		2nd
	Sino-Indian Relations		3rd
	India's Relations with the U.S.A. and U.S.S.R.		3rd
Unit – IV	Growth of Parliamentary Democracy	April	1st
	National Political Parties		2nd
	Electoral Politics the National Level		3rd
	Centre -State Relations		4th
	Democratic Decentralisation		

Signature

(Dr - APRAJITA)
Associate Prof.
Dept - of History

HISTORY DEPT.

Session 2023-24
Lesson Plan M.A. (Final) 4th Semester
Business History of India 1200 - 1947
Paper – XXVIII

Unit	Topic/Chapter to be covered	Month	Week
Unit – I	Introduction of Syllabus	January	1st
	Business in Pre -Colonial India		1st
	Caste and Business Communities		2nd
	Trade and Commerce - Internal and External		2nd
	Important Trade Centers		3rd
	Credit and Indigenous Banking System		3rd
	Potentialities of Capital growth		4th
Unit – II	European Trading Interests in India upto 1757	February	1st
	East India Company's trade during 1757-1883		2nd
	British Private Trade in India in the 18th C		2nd
	Role of European Agency Houses during 1793-1848		3rd
	Indigenous Bankers during 1800-1850		3rd
	Origin and Growth of Managing Agency System		4th
Unit – III	Expansion of Trade and Business - Railways ,Roads and Telegraphs -their impact on business and trade		4th
	British Monetary policy and Emergence of Modern Banking System- Impact on business and trade	March	1st
	European Chamber of Commerce- Their Business interests in India		2nd
Unit – IV	Rise of Indian Industrial Houses with particular reference to Tata		3rd
	Founding of Indian Chamber of Commerce	April	1st
	Conflict between British and Indian Business interests and its impact on Indian Politics		2nd
	National planning Committee and the Bombay Plan		3rd
	Revision		4th

Apajita
(Dr. APARJITA)
Associate Prof
Dept of History

Govt. P.G. College, Sector-1, Panchkula

HISTORY Dept.

Lesson Plan 2023-24.

M.A. Previous 2nd Semester
History of Europe - II (1871-1914)

Unit	Topic	Month	Week
Unit-I	Europe in 1871: State, Politics and Society	January	1st
	Bismark and Beginning of Diplomatic Alignment : Three Emperors' League		2nd
	Dual Alliance, Triple Alliance		3rd
	Re-Insurance Treaty		4th
Unit-II	Franco-German Relations 1871-1890	February	1st
	The Eastern Question: Revolt in Bosnia and Russo-Turkish War		2nd
	Berlin Congress, Bulgarian Crisis		3rd
	European Imperialist Interest in Africa and its Partition		4th
Unit- III	Franco- Russian Alliance	March	1st
	Anglo- French Alliance, Anglo Russian Alliance and formation of Triple Entente		2nd
	Shifting Position of Italy ; Nature of the Triple Alliance and Triple Entente 1907- 1914		3rd
Unit- IV	Morocco Crisis, Bosnian Crisis and Agadir Crisis	April	1st
	Anglo- German Naval Rivalry Balkan League and Balkan Wars		2nd
	World War -I : Origins and Responsibility		3rd
	Presentation & Revision		4th

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HISTORY DEPT.

Session 2023-24
Lesson Plan - M.A. Previous (2nd Sem)
Japan in Modern Times.
paper- X

Unit	Chapter/Topic covered	Month	Week
Unit-I	The Period of Transition: Japan in the 19th Century;	January	1st
	Western Contact and its Implications;		2nd
	Circumstances leading to the Meiji Restoration		3rd
			4th
Unit-II	The Meiji Era: Meiji Restoration – Nature and Significance;	February	1st
	Political Reforms; Educational and Social Restructuring; Economic and Industrial Transformation		2nd
Unit-III	Failure of Democracy: Political Party System and its Drawbacks;		3rd
	Growth of Militarism – Expansion and Aggression;		4th
	Japan and World War-II		
Unit-IV	The Post-War Japan: Process of Disarmament and Demilitarization;	March	1st
	Democratisation - New Political System;		2nd
	Economic and Industrial Remodeling up to 1960		3rd
	Social and Educational Remodeling upto 1960	April	1st
	Test, Assignment, Presentation, Discussion etc.		2nd & 3rd
	Revision		4th

Apajita
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Associate Prof.
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[Teacher Haypreet Kaur Bangra] LESSON-PLAN (EVEN SEMESTER)
Session 2023-2024
COURSE - XIX (OPTION II) - ENGLISH LANGUAGE (Part - II)

January 1st week → Introduction to the syllabus, Question paper and marking scheme.
Unit - I Methods and materials
Grammar - translation Method

2nd week → Direct Method - history, features, advantages and disadvantages

3rd week → Audio-lingual Method and Communicative Language Teaching

4th week → Unit - I → Study of clauses

Feb. 1st week → Unit - I → Relative Clause - practice Exercises (Test)

2nd week → Unit - I → Noun Clause - practice Exercises, (Test)

3rd week → Unit - I → Adverb Clause - practice Exercises (Test)

4th week → Assignment - I, Revision Unit I & Unit II

March - 1st week → Unit - II figures of speech - Simile, Metaphor
Critical Appreciation, Symbolism, practice

2nd week → Unit - II foregrounding, style as Deviance, personification, Alliteration, Critical Appreciation

3rd week → Unit - II Metre, Imagery, Parallelism, Critical Appreciation
Assignment - 2, Text

4th week → HOLI BREAK.

April - 1st week → Unit - III ELT in India: A brief history, Role of English, Presentations by students

2nd week → Unit - III Nature and approaches of Methods, problems and perspectives, presentation by students

3rd week → Revision of the entire syllabus

4th week → Discussion of previous year question-papers.

MAY - (K.V.K. Exams)
Haypreet
(Haypreet Kaur Bangra)
Dept. of English

Teacher's Name
Harpreet Kaur Baweja

LESSON-PLAN (EVEN SEMESTER)

SESSION 2023-2024

B.A. II (Honours) English
Paper - I : Grammar and Contemporary English Usage
Question-Paper.

January 1st Week → Introduction to the syllabus, Question-Paper, Marking scheme.

2nd Week - 2 Translation Practice Exercises

3rd Week - 4 Grammar Phrasal verbs, Translation

4th Week - Translation Practice Exercises,

February 1st Week - 4. Grammar Voice - Rules, Practice

2nd Week - 4. Grammar Narration Rules Practice

3rd Week - Practice of voice and Narration

4th Week - Assignment I, Test.

March

1st Week - 1) Precis-writing, practice, Grammar- Mood and modality

2nd Week - 1) Precis-writing, practice, Grammar. Conjunctions

3rd Week - Grammar - Various concepts (instructions, requests, imitations etc. and ways in which phrasal verbs they are expressed), Assignment II

4th Week - HOLI BREAK

April

1st Week → Phrasal Verbs, Paragraph writing, Conjunctions

2nd Week → Types and of Sentences - Simple, Compound and complex, Noun, relative, Conditional and Co-ordinate Clauses, Test

3rd Week → Discussion of previous year question-papers

4th Week → Revision

May

1st Week → K.V.K. Final Exams

Harpreet

(Harpreet Kaur Baweja)
Deptt of English

Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Organic Chemistry

Class: B.Sc. II (IV SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Infrared (IR) absorption spectroscopy
		II	Molecular vibrations, Hooke's law,
		III	Selection rules, intensity and position of IR bands,
		IV	Measurement of IR spectrum, fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds. Applications of IR spectroscopy in structure elucidation of simple organic compounds.
		V	Amines Structure and nomenclature of amines, physical properties.
2.	February	I	Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines.
		II	Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds.
		III	Gabrielphthalimide reaction, Hofmann bromamide reaction. Electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.
		IV	Diazonium Salts Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO ₂ and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application. Aldehydes and Ketones Nomenclature and structure of the carbonyl group.

3.	March	I	Wittig reaction. Mannich reaction.
		II	Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones,
		III	Cannizzaro reaction. MPV, Clemmensen, WolffKishner, LiAlH ₄ and NaBH ₄ reductions.
		IV	Physical properties, Comparison of reactivities of aldehydes and ketones.
4.	April	I	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol.
		II	Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,
		III	Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate.,
		IV	Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives.

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Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Inorganic Chemistry

Class: B.Sc. III (VI SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Acid Bases: Different concepts of acid and bases
		II	Arrhenius, Bronsted-Lowry concepts of acids and bases
		III	Solvent system and Lewis concept of acids and bases Relative strength of acids and bases
		IV	
		V	Leveling solvents
2.	February	I	Hard and soft acids and Bases,
		II	Applications of HSAB principle ,
		III	Organometallic compounds -Classification,
		IV	Nomenclature Organometallic compounds, Nature of bonding,
3.	March	I	Metal carbonyl- Bonding and nomenclature
		II	Bioinorganic chemistry: role of metal ions in biological system,

		III	Metalloporphyrin, nitrogen fixation, uses
		IV	Silicones: Classification, Nomenclature, Nature of bonding
April		I	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		II	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		III	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		IV	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
			Phosphozenes: Classification, Nomenclature, Nature of bonding, uses Test

42

Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Inorganic Chemistry

Class: B.Sc. II (IV SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Chemistry of f-block elements, Introduction to Lanthanide
		II	Lanthanides: Electronic structure, oxidation states,
		III	Ionic radii and Lanthanides contraction
		IV	Complex formation
		V	Occurrence and isolation of Lanthanides
2.	February	I	Isolation of Lanthanides
		II	Lanthanide compounds
		III	Actinides: General features and chemistry of actinides
		IV	Chemistry of separation of Np, Pu, and Am from U, Chemistry of separation of Np, Pu, and Am from U,
3.	March	I	Comparison of properties of Lanthanides and Actinides and with transition elements
		II	Theory of qualitative and quantitative analysis-1

4.	April	III	Chemistry of analysis of various acidic radicals
		IV	Chemistry of identification of acid radicals in typical combination,
			Chemistry of analysis of various basic radicals
		I	Chemistry of interference of acid radicals including their removal in the analysis of
		II	basic radicals
			Common ion effect, solubility product
		III	Theory of precipitation, theory of post-precipitation
		IV	Purification of precipitation
			Test

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LESSON PLAN OF PHYSICAL CHEMISTRY FOR B.Sc. 4th SEMESTER

NAME OF LECTURE:-Dr.Parvesh Gupta

SUBJECT: - PHYSICAL CHEMISTRY

January 2024 – April 2024

SR.NO.	DATE	TOPIC
1	January 1 st week	UNIT 2 ND :- Electrochemistry: - Electrolytic and Galvanic cells – reversible & irreversible cells.
2	January 2 nd week	Electrode Potential, Measurement of standard electrode Potential and emf of the cell and its measurement
3	January 3 rd week	Standard cell- weston standard cell, electrical energy and emf of reversible cell.
4	January 4 th week	Conventional representation of electrochemical cells. Calculation of thermodynamic quantities of cell reaction (ΔG , ΔH , change in entropy & K).
5	January 5 th week	reference electrode and electrochemical series and its application.
6		Activity and activity coefficient , Types of reversible electrodes – metal-metal ion, gas electrode, metal –insoluble salt- anion and redox electrodes
7	February 1 st week	Types of reversible electrodes redox electrodes Electrode reactions, Nernst equations.
8		Effect of electrolytic concentration and temp. On electrode potential, derivation of cell EMF and single electrode potential
9	February 2 nd week	Derivation of equilibrium constant from Nernst equation.
10		Electrolytic polarization-concentration polarization.
11	February 3 rd week	Decomposition voltage or decomposition potential.
12		Standard Hydrogen electrode, reference electrodes, standard electrode potential, sign conventions
13	February 4 th week	Concentration cells with and without transference, liquid junction potential and its measurement
14		Applications of EMF measurement in solubility product and potentiometric titrations using glass electrode
15	March 1 st week	More stress on numerical problems
16		Numerical on the bases of Ecell and E0cell and nerneest equation.
17	March 2 nd	TEST

	week	
18		UNIT 1 ST :- Thermodynamics:-INTRODUCTION FROM 1 ST LAW OF THERMODYNAMIC.
19	March 3 rd week	Second law of thermodynamics, need for the law, different statements of the law,
20		CYCLIC PROCESS, CARNOT CYCLIC AND ITS EFFICIENCY.
21	March 4 th week	Carnot's theorem, Thermodynamics scale of temperature.
22		Concept of entropy entropy as a state function, entropy as a function of V & T. entropy as a function of P & T.
23	April 1 ST week	Entropy CHANGE IN reversible and irreversible process.
24		Entropy CHANGE IN accompanying phase transition mixing of ideal gases.
25	April 2 ND	Standard entropy and standard change in a chemical reaction.
26		Gibbs free energy or Gibbs free energy function. Variation of work function with temp. and pressure.
27		entropy change in physical change. entropy as a criteria of spontaneity and equilibrium
28	April 3 rd	Third law of thermodynamic s: Nernst heat theorem, statement of concept of residual entropy
29	April 4 th	evaluation of absolute entropy from Heat capacity data. Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities, G as criteria for thermodynamic equilibrium and spontaneity
30		Its advantage over entropy change. Variation of G with P, V and T
31		Test of 1 st unit.

LESSON PLAN OF PHYSICAL CHEMISTRY FOR B.Sc. 6th SEMESTER

NAME OF LECTURE:-DR.PARVESH GUPTA

SUBJECT: - PHYSICAL CHEMISTRY

SESSION -2023-24 (January 2024 – April 2024)

SR.NO.	DATE	TOPIC
1	January 1 st week	Introduction to statistical mechanics Need for statistical thermodynamics, thermodynamic probability
2		Maxwell Boltzmann distribution statistics
3	January 2 nd week	Born oppenheimer approximation, partition function and its physical significance
4		Factorization of partition function and ensemble.
5	January 3 rd week	Part 2 nd :- Photochemistry:- Interaction of radiation with matter, difference between thermal and Photochemical processes.
6		Laws of photochemistry: Grotthus-Draper law, Stark- Einstein law (law of photochemical equivalence),
7	January 4 th week	Jablonski diagram depicting various processes occurring in the excited state, qualitative description of fluorescence
8		phosphorescence, non-radiative processes (internal conversion, intersystem crossing)
9	January 5 th week	quantum yield, photosensitized reactions-energy transfer Processes (simple examples).
10		Photo chemical equilibria, photo inhibitors and photo stationary state
11	February 1 st week	Difference between phosphorescence and fluorescence, luminescence. Example of photochemical reactions and their mechanism.
12		Quenching of fluorescence stern volmer equation.
13		Unit 2 nd :- Solutions, Dilute Solutions and Colligative Properties:- introduction, mode of expressing the concentration of a solution, molar free energy,
14	February 2 nd week	Fugacity and activity and activity coefficient. Ideal and non-ideal solutions,
15		Dilute solutions, Raoul's law. Colligative properties: (i) relative lowering of vapour pressure (
16	February 3 rd week	Thermodynamic derivation of relative lowering of vapour pressure.
17		Experimental determination of l.w.vapour pressure, elevation in boiling point.
18	February 4 th week	Experimental determination in elevation in boiling point.

19			Relation between l.v.vapour pressure and elevation in boiling point.
20	March week	1 st	depression in freezing point.. Experimental determination in depression in freezing point
21	March week	2 nd	Thermodynamic derivation of relation between amount of solute and elevation in boiling point and depression in freezing point..
22	March week	3 rd	Osmotic pressure. osmosis. and law of osmotic pressure. semi permeable membrane
23	March week	4 th	Thermodynamic derivation of Osmotic pressure
24	April week	1 ST	Experimental determination of Osmotic pressure
25			Applications in calculating molar masses of normal. dissociated and associated solutes in solution
26	April week	2 ND	Part2nd :- Phase Equilibrium:- Statement and meaning of the terms – phase, component and degree of freedom
27	April week	3 rd	thermodynamic derivation of Gibbs phase rule. phase equilibria of one component system –Example – water system
28			Example – sulphur system, Phase equilibria of two component systems
29	April week April week	5 th	solid-liquid equilibria, simple eutectic Example Pb-Ag system. desilverisation of lead.
30			Test



PUNJABI

Semester Wise Lesson Plan/Syllabus to be covered

Class BA

Semester VI

Month	week	Topic
January	I	ਅਨੁਵਾਦ
	II	ਸਾਹਿਤ ਰੂਪ
	III	ਸਾਹਿਤ ਰੂਪ
	IV	ਵੱਖਰ ਬਦਲ
	V	ਅਨੁਵਾਦ
February	I	ਗਾਇ ਜੋਤਾਂ ਗਾਇ ਸੰਗ੍ਰਹਿ
	II	ਗੁਰੂ ਅਰਜਨ ਦੇਵ
	III	ਗੁਰੂ ਤੇਗ ਬਹਾਦਰ ਜੀ
	IV	ਸ਼ਾਹ ਹੁਸੈਨ
March	I	ਖੀਲ
	II	ਖੰਜਾਬੀ ਸਾਹਿਤ ਗਾਇਤਰਿਗਮ
	III	ਖੰਜਾਬੀ ਸਾਹਿਤ ਗਾਇਤਰਿਗਮ
	IV	vacations (Holi)
April	I	ਗੁਰੂ ਗੋਬਿੰਦ ਸਿੰਘ ਜੀ
	II	ਸਾਹਿਤ ਰੂਪ
	III	ਲਿੰਗ ਬਦਲ
	IV	Revision



It is certified that I have completed the syllabus per the schedule.

Signature

PUNJABI

Semester Wise Lesson Plan/Syllabus to be covered

Class BA Semester IV

Month	Week	Topic
Jan	I	ਨਿਬੰਧ
	II	ਮਾਹਿਤਰ ਸ਼ਬਦਾਵਲੀ
	III	ਵੁਜੀਦ
	IV	ਵਾਰਿਸ਼ਮਾਹ
	V	ਨਿਬੰਧ
Feb.	I	ਮਲੇਕਾਰ
	II	ਮਲੇਕਾਰ
	III	ਕਾਦਰਪਾਹ
	IV	ਖੰਜਾਈ ਮਾਹਿਤ ਦਾ ਇਤਿਹਾਸ
March	I	ਖੰਜਾਈ ਮਾਹਿਤ ਦਾ ਇਤਿਹਾਸ
	II	ਖੀਰ ਮੁਹੰਮਦ
	III	ਸ਼ਾਹ ਮੁਹੰਮਦ
	IV	Holi Vacations
April	I	ਬਹੁਤੇ ਸ਼ਬਦਾਂ ਦੀ ਖਾਂਦਿਕ ਸ਼ਬਦ
	II	ਨਿਬੰਧ
	III	ਮਾਹਿਤਰ ਸ਼ਬਦਾਵਲੀ
	IV	Revision



It is certified that I have completed the syllabus per the schedule.

Signature

DEPTT OF ECONOMICS

LESSON PLAN MA ECONOMICS(Even Semester)

SUBJECT : Macro Economic Analysis-II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view .
	2	International flow of capital and goods; saving and investment in a small open economy
	3	Exchange Rates-real and nominal; Demand and supply of Foreign Exchange;
	4	Balance of payments-current and capital account
	5	Mundell-Fleming Model under fixed and flexible exchange rates.
FEB	1	TEST AND REVISION OF UNIT-1
	2	Classical, Keynesian and Monetarist approaches
	3	Structuralist theory of inflation:
	4	Philips curve analysis – Short run and long run Philips curve; Natural Rate of Unemployment hypothesis;
	5	Tobin's modified Philips curve. Search Theory – DMP (Diamond, Mortenson, Pissarides) Model.
		TEST AND REVISION OF UNIT-2
MARCH	1	Business Cycle Theories of Schumpeter
	2	Kaldor, Samuelson
	3	
	4	Hicks; Control of business cycles – relative efficacy of monetary and fiscal policies.
	5	-DO-
		TEST AND REVISION OF UNIT-3
APRIL	1	Monetary and Fiscal Policy- Targets and instruments
	2	
	3	Conflicting objectives and coordination of objectives; Elasticities and effectiveness of monetary and fiscal policy.
	4	The Great Depression; Lags in the effects of policies; Expectations and Reactions; Uncertainty and Economic Policy; Economic Policy - Rules vs Discretion .
	5	The Concept of Rational Expectations; New Classical Macro Economics – basic approach and policy implications; New Keynesian Economics - Sticky Nominal prices (Mankiw Model).
		TEST AND REVISION
MAY	1	

DEPTT OF ECONOMICS

LESSON PLAN : MA Economics (Even semester)

SUBJECT : QUANTITATIVE METHODS-II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view
	2	Index numbers: uses and types
	3	tests for consistency
	4	Base shifting, splicing and deflating of index numbers.
	5	Time series analysis: introduction and components, method of simple averages
FEB	1	Moving averages and ratio to moving averages.
	2	Basic concepts and definitions of probability
	3	Laws of addition and multiplication;
	4	Conditional probability; Bayes theorem (statement); Binomial, Poisson and Normal distribution
	5	-DO -
MARCH	1	Basic concepts of sampling- random and non-random sampling.
	2	Types of data and statistical analysis procedures: Univariate, Bivariate and Multivariate (only overview)
	3	Hypothesis Testing procedures based on Z, t.
	4	χ^2 and F-test, one-way ANOVA
	5	Do
APRIL	1	Correlation: Karl Pearson
	2	Spearman's Rank,
	3	Meaning and assumptions of simple regression analysis;
	4	Single linear equation regression model (by OLS Method),
	5	Concept of an estimator and its desirable properties; Coefficient of determination, Estimation of simple and exponential growth rates.
MAY	1	TEST AND REVISION

DEPTT OF ECONOMICS

LESSON PLAN : MA Economics (Even semester)

SUBJECT : INDIAN ECONOMIC POLICY-II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view
	2	Five year Plans with emphasis on latest plan.
	3	-DO-
	4	Infrastructural development- issues and policies in its financing
	5	-DO-
FEB	1	Industrial policy; Public Sector enterprises and their performance
	2	Privatization and disinvestment debate
	3	Micro and Small-scale Industries
	4	Labour sector reforms.
	5	REVISION TEST UNIT 1 & 2
MARCH	1	Analysis of price behaviour in India
	2	Review of monetary policy of the Reserve Bank of India (RBI) with emphasis on latest developments
	3	-DO-
	4	Banking Sector reforms in India.
	5	-Do-
APRIL	1	Globalization of Indian economy
	2	WTO and its impact on the different sectors of the economy;
	3	-DO-
	4	Rationale of and issues in good governance.
	5	REVISION TEST UNIT -4
MAY	1	TEST AND REVISION

DEPTT OF ECONOMICS

LESSON PLAN MA Economics (Even Semester)

SUBJECT : ECONOMICS OF GROWTH AND DEVELOPMENT – II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view
	2	Balanced and Unbalanced Growth,
	3	Critical Minimum Efforts Theory , Low Income Equilibrium Trap; Dual Economy
	4	Models of Lewis, Fei-Ranis, Jorgensen
	5	Basic idea of Dixit and Marglin, Kelly et.al.
FEB	1	Role of Agriculture in Economic Development
	2	Heterogeneity in Agriculture; Agricultural Transformation;
	3	Designing Strategy for Agriculture Transformation
	4	Rationale and Pattern of Industrialization in developing Countries
	5	Choice of Techniques appropriate technology and employment; Terms of Trade between Agriculture and Industry.
MARCH	1	Services Sector in Developing Economies; Role, growth and sustainability, Infrastructure and its importance.
	2	International Trade as an Engine of Growth: Static and Dynamic gains from Trade; Prebisch-Singer Thesis vis-à-vis Free Trade experience of Developing Countries
	3	Trade Policy Debate: Export promotion, Import Substitution and Economic Integration
	4	WTO and Developing Countries, International Organizations IMF and World Bank.
	5	-DO-
APRIL	1	Market Failure & Rational of state in Economic development
	2	State Capacity and State Failure; Good Economic Governance.
	3	Development Planning: Financial System & Macroeconomic Stability
	4	Fiscal Policy for inclusive Growth.
	5	REVISION TEST UNIT -4

MAY	1	TEST AND REVISION
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DEPTT OF ECONOMICS

LESSON PLAN MA Economics (Even semester)

SUBJECT : ECONOMICS OF AGRICULTURE-II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view
	2	Agricultural Production- Stock and Flow Resources, Production Relationships, Resource use and efficiency
	3	Production Functions analyses in agriculture; Factor Relationships – Isoquant and Iso Cost Line,
	4	Optimum Combination; Product Relationships – Joint Products, Competitive Products
	5	Supplementary Products and Antagonistic Products; Diversification of Agricultural Production – Horticulture and Floriculture, Mushroom Cultivation and Processing of Agricultural Products.
FEB	1	Role of capital and rural credit; Organized and unorganized capital market;
	2	Rural savings and capital formation; Characteristics and Sources of rural credit- Institutional and non institutional;
	3	Reorganization of rural credit-cooperatives, commercial banks, regional rural banks; Role of the NABARD.
	4	-DO-
	5	-DO-
MARCH	1	Schultz's Transformation of Traditional Agriculture,
	2	Mellor's Model of Agricultural Development,
	3	Boserup Model of Agriculture Development,
	4	Hayami - Ruttan Induced Innovation Hypothesis.
	5	-Do-
APRIL	1	Issues in liberalization of domestic and international trade in agriculture,

	2	Impact of the World Trade Organization on Indian Agriculture
	3	Agriculture and Environment-Sustainable Development,
	4	Food Security and International Trade – Concept, Threat, Indicators and Mechanism to Food Security.
	5	REVISION TEST UNIT -4
MAY	1	TEST AND REVISION

DEPTT OF ECONOMICS

LESSON PLAN

B. A. PART-III (ECONOMICS) Even semester

SUBJECT: INDIAN ECONOMY – II

SESSION 2023-24

MONTH	WEEK	TOPIC
JAN	1	Introduction to the syllabus and over view
	2	Role of Industrialization
	3	Industrial Policy – 1991 onwards.
	4	New Economic Reforms – Concepts i) Liberalization ii) Privatization, iii) Globalization
	5	Small and Large Scale Industry – Growth and Problems.
FEB	1	Growth of Knowledge Based Industry – IT, Software Consultancy.
	2	Meaning and Classification of Labour
	3	Characteristics of Industrial Labour.
	4	Industrial Disputes Causes, Measures for Settlement.
	5	Social Security Measures in India
MARCH	1	Planning: Meaning, Concepts, Need and Objectives.
	2	Types of Planning, Merits and Demerits
	3	Objectives, Achievements, and Failures of Five Year Plans. Objectives of ongoing Five Year Plan.
	4	External Sector -Trends and Composition of India's Imports.
	5	-Do-
APRIL	1	Trends and Direction of India's Exports
	2	EXIM Policy of India in relation to Trade Liberalization and its Impacts

Class: MA 4th Semester

Month	Topics to be covered
January 2024	Liberty, Equality, Justice & Democracy
February 2024	Concept of Ideology, end of Ideology debate, End of History debate
March 2024	Post Modernism, Communitarianism, Green Political theory, Feminism
April 2024	Theories of Change: Lenin, Mao and Gandhi Assignment & Presentation

Class: MA 2nd Semester

Month	Topics to be covered
January 2024	Manu, Kautilya, Raja Ram Mohan Roy
February 2024	Gokhale, Tilak, Vivekanand
March 2024	M. N. Roy, Gandhi, Ambedkar
April 2024	Nehru, Assignment & Presentation

20/11/2023

A/Prof. Political Science

Class BA 4th Semester

Month	Topics to be covered
January 2024	Hegel, Marx, Lenin
February 2024	Mac, GDH Cole, Rawls
March 2024	Nozick, Laski
April 2024	Tests, Assignment & Presentation

Class BA 6th Semester

Month	Topics to be covered
January 2024	Evolution, Conventions, Legacies and Basic features of Constitution of UK & USA. Socio-economic basis of Constitutions of UK & USA
February 2024	Comparative study of Executive, Legislation & Judiciary of UK & USA
March 2024	Comparative studies of structures, functions & roles of Political Parties and pressure groups of UK & USA
April 2024	Electoral processes, voting behaviour, Bureaucracy and recent trends of working of system of UK & USA Assignment & Presentation

21/11/2023

A/Prof. Political Science

Political Science

Session 2023-2024 (Even Semester)

Paper: Principal of Political Science (class BAI)
(CC)

Feb: - Theory and Practice of Govt: Legislature
Executive and Judiciary, The Theory of
separation of Powers, Rule of Law

March: Forms of Government: Unitary and Federal
Forms of Government: Parliamentary and Presidential
Operational Dynamics of Political System
Indian Party, Pressure Group

April Theory of Representation, Bureaucracy
Political Regimes, Democracy.

May Democracy & Revision.

Political Science

Session 2023-2024 (Even Semester)

Tentative Lesson Plan

(Class BA (Minor))

Month	Functioning of Legislative, Executive and Judiciary
Feb	
March	Form of Government Federal, Unitary Parliamentary and Presidential
April	The role of Political Parties. Monarchy and Totalitarianism
May	Democratic Political Regime.

Sant

HOD,

Political Science
Session 2023-2024 (Even Semester)

class ~~B.A~~ (M.D.C)

Paper: Indian Polity II
Tentative Lesson Plan

Month

Feb: Powers, position and function of the State Executive.

March Powers position and function of state legislature. The functioning of Indian Judicial system..

April Functioning of Local self government.

Sant

MOI

Pol. Science.

Political Science.

Session 2023-2024 (Even Semester)

Paper I International Law (Class MA II)

Tentative lesson Plan

Month

Jan War and its effects, Enemy Character, Means for settlement of Disputes - Amicable and Coercive.

Feb Laws of War - Land, Aerial and Maritime Warfare, Legality of instrument of Warfare.

March Termination of War, Treatment of POWs, War Crimes, Prize Courts, Neutrality, Definition Status, Rights and Duties, Blockade and Contraband.

April. Cooperative Law - Laws of Sea, Laws of Outer space and Environmental Conferences.

May (1st Week) Revision.

SrinH

HOD
(Pol. Science.)

Political Science
Semester 2023-2024 (Even Semester)

Paper: Indian Govt. and Politics (Class: MA I)

Tentative Lesson Plan.

Month

Jan Historical Dimensions of Political culture, Dominant values and Traditions.

Feb Party System in India; National and Regional Political Parties, Anti Defection Law, Coalition Politics.

March Political Economy Dimensions, Politics of Economic Development, Electoral Regions.

April. Impact of Caste, Religion, Regionalism Language weaker sections, Emerging Trends in Indian Polity.

May (1st week) Revision.

Sant

HOD

(Pol Science)

MA I

BA 2nd (Hons)

Introduction to Modern Age

Introduction to Victorian Period

Major Movements of the Age

Introduction to Victorian Poets, Last Appeal, Transition, Poems

Weeks, Poems, Poems, Poems, Poems

Study of Shelley, Percy Bysshe Shelley, John Keats, Revision, Test

Assignment, Poets to Arnold

Development, Memorial Volume, Life and Thought, To Marguerite

Shakespeare, Revision Test

Study to Government, Psychological, My Last Duchess

Study to Government, History, History

Revision, Assignment, History

Revision of History of Victorian

Revision, Tests

Examinations

Exams of 1st Sem.

Exams

Phonetic Symbols, Speech Sounds, Transcription

Developing Fluency in Speaking, Questioning, Expository Speech, Arguments, Live Speech, Dialogues

Role Plays & Group Discussions

Use of Handwritten, Capitalization

Do, Spaces

Tests

do, Revision

Notice

Week

I

II

III

IV

V

VI

VII

VIII

IX

X

XI

XII

XIII

XIV

XV

XVI

XVII

XVIII

XIX

XX

XXI

XXII

XXIII

XXIV

XXV

XXVI

XXVII

XXVIII

LESSON PLAN

DEPARTMENT OF DEFENCE STUDIES


SESSION 2023-24

EVEN SEMESTER

CLASS - B.A. VI SEMESTER

NAME OF THE PAPER - National Security II

MONTH		TOPICS TO BE COVERED
January	Week I	Meaning, Nature and scope of Military geography
	Week II	Elements of Military Geography
	Week III	India and its Geo-Strategic Significance
	Week IV	Indian Maritime boundary
February	Week I	Geographic division of Indian Borders
	Week II	Geo-strategic importance of Indian oceans
	Week III	Geo-strategic importance of Indian oceans
	Week IV	India's Interests in the Indian oceans
March	Week I	India's Interests in the Indian oceans
	Week II	Global Information system (GIS)
	Week III	Remote sensing and National Security
	Week IV	Holi Vacations
April	Week I	Disaster management and National Security
	Week II	Disaster Management and National Security
	Week III	Revision
	Week IV	Revision



Department of Defence STUDIES

Studies

LESSON PLAN

DEPARTMENT OF DEFENCE STUDIES

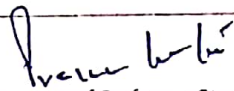
SESSION 2023-24

EVEN SEMESTER

CLASS – B.A. IV SEMESTER

NAME OF THE PAPER – National Security II

MONTH		TOPICS TO BE COVERED
January	Week I	India's Maritime strategy and Naval Security
	Week II	India's Maritime strategy and Naval Security
	Week III	India's Foreign Policy and security
	Week IV	India's Security :Internal Threats
February	Week I	India's Security :External Threats
	Week II	International strategic environment in post cold war period
	Week III	Terrorism and India's National Security
	Week IV	National Security Council
March	Week I	India's relation with Pakistan.
	Week II	India's relation with Pakistan and China
	Week III	India's relation with China and Bangladesh
	Week IV	Holi vacations
April	Week I	India's relation with Bangladesh and Srilanka
	Week II	India's relation with Nepal, Mynammar.
	Week III	India's relation with USA
	Week IV	Revision


Department of Defence Studies

LESSON PLAN

DEPARTMENT OF DEFENCE STUDIES

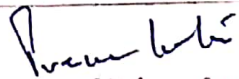
SESSION 2023-24

EVEN SEMESTER

CLASS – B.A. II SEMESTER

NAME OF THE PAPER – Evolution of Indian Military System

MONTH		TOPICS TO BE COVERED
February	Week III	Military System in Vedic Period
	Week IV	Military System of Ramayana Period
March	Week I	Military System of Ramayana and Mahabharata period
	Week II	Military System of Mahabharata
	Week III	Kautilya's Philosophy of war
	Week IV	Holi vacations
April	Week I	Mourya Military System
	Week II	Hindu Military System during the age of Gupta
	Week III	Hindu Military System during the age of Harsh
	Week IV	Sikh Military System under Dal Khalsa and Battle of Sabroan 1846 A.D.
May	Week I	Rise of Autonomous State Bharatpur Role of Maharaja Suraj Mal
	Week II	Revision
	Week III	Revision


Department of Defence Studies

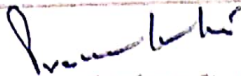
LESSON PLAN

DEPARTMENT OF DEFENCE STUDIES
SESSION 2023-24
EVEN SEMESTER

CLASS - B.A. II SEMESTER

NAME OF THE PAPER - MDC Introduction to Military Studies

MONTH		TOPICS TO BE COVERED
February	Week III	Concept and Evolution of Military studies
	Week IV	Importance of Military studies
March	Week I	Contemporary Need of Military Studies
	Week II	Basic Structure and Role of Armed Forces
	Week III	Arenal Forces
	Week IV	Holi vacation
April	Week I	Special Forces ,Para Forces
	Week II	Para forces, Security and Geo strategy
	Week III	Geo Strategy and Geo Politics
	Week IV	Maritime Security
May	Week I	INDIAN Armed Forces: Weapons and War equipment
	Week II	Modernisation of the Indian Armed Forces
	Week III	Revision
	Week IV	Revision


Department of Defence Studies

Govt. College, Sector-1, Panchkula

Lesson Plan (Even Sem. 2023-24)

Name of the Associate Professor: Anju Jindal

Management Accounting

B.Com. 6th Sem. (A)

Month	Topics to be covered
January 2024	Management accounting: concept, scope, techniques and significance, comparison between financial accounting, cost accounting and management accounting. Management reporting: need and type of reports.
February	Management information system. Analysis of financial statements: comparative statements, common size statements, trend analysis, Ratio analysis: liquidity ratios. Ratio analysis: solvency, profitability and turnover ratios;
March	Cash flow and funds flow statements: need and method of preparing statements. Absorption V/S variable costing: features and income determination. Assignment. Cost volume profit analysis, break-even analysis, contribution; P/V ratio, break-even point, Margin of safety, Angle of incidence, determination of cost indifference point.
April	Budgeting and budgetary control: need, methods and types of budgets, essentials of budgetary control system. Assignment. Tests and Revision.

Retail Management

B.Com. 6th Sem. (A)

Month	Topics to be covered
January 2024	Retailing: concept, characteristics and importance; theories of retailing; strategic planning in retailing; classification of retail institutions; store based and non-store based retail organizations;
February	Planning location of retail institution: trading area analysis, deciding the most desirable type of location, choice of a general location, choosing and evaluating a particular site; Process of setting up a retail organization. Assignment.
March	Store management: deciding stores layout, security issues; Organizational structure in retail institutions; applications of information technology in retailing. Assignment.
April	Material handling & Energy management, blueprinting operations, Trends in retailing in India; FDI in retail. Revision and Tests

DEPARTMENT OF BOTANY

B.Sc. II (Semester 4) Session 2023-24

Dr. Neeraj (2 period/week) & Dr. Priyanka (2 periods/week)

1-6 Jan	Paper I: Taxonomy and Systematics Fundamental Components of taxonomy Paper II: Flower and modified shoot
8-13 Jan	Paper I: Role of Chemotaxonomy, cytotaxonomy and taxometrics Paper II: Microsporangium –wall and Dehiscence Microsporogenesis - pollen grain and its structure
15-16,18- 20 Jan	Paper I: Botanical Nomenclature, Keys to Identification of plants Paper II: Pollen pistil interaction self incompatibility
22-25,27-Jan	Paper I: Flower and types of inflorescence Paper II: Pollination germination, male gametophyte
29-31 Jan	Paper- I: Bentham and Hooker Classification Engler and Prantl system of classification Assignment -1, Test-1
1-3,5-10 Feb	Paper I: Families – Diagnostic features Economic Importance and Examples; Ranunculaceae, Brassicaceae Paper II: Structure of Megasporangium and its curvature
12,13,15-17 Feb	Paper II: Megasporogenesis and megagametogenesis Female gametophyte Double fertilization
19-23,26-29 Feb	Paper I: Malvaceae, Euphorbiaceae Paper II: Endosperm types and its biological importance
1,2,4-7,9 March	Paper I: Apiaceae, Asclepiadaceae
11-16 March	Paper I: Asteraceae, Liliaceae
18-22 March	Paper II: Fruit Types; dispersal mechanism Assignment -2, Test-2
1-6 April	Paper I: Lamiaceae, Solanaceae, Poaceae Paper II: Embryogenesis in monocot and dicot, Polyembryony

Lesson Plan (B.Sc. III ,6TH SEM) 2023–2024

Name: Dr. Shailja Kaushal

Subject: Botany

Date	Topics to be covered
1 -6 Jan	Paper- I (Biochemistry & Plant biotechnology)Basics of Enzymology: Discovery and nomenclature
8-13 Jan	Paper- I (Biochemistry & Plant biotechnology)Basics of Enzymology: characteristics of enzymes; concept of holoenzyme, apoenzyme, coenzyme and co-factors
15-16,18- 20 Jan	regulation of enzyme activity; mechanism of action Growth and development: Definitions; phases of growth and development; Plant hormones auxins, gibberellins
22-25,27-Jan	Plant hormones; cytokinins, abscissic acid and ethylene. History of their discovery, mechanism of action; photo-morphogenesis; phytochromes and their discovery, physiological role and mechanism of action
29-31 Jan	Phytochromes and their discovery, physiological role and mechanism of action
1-3,5-10 Feb	Paper- II (Economic Botany) Origin, distribution, botanical description; brief idea of cultivation and uses of the following: Food plants- Cereals (Rice, Wheat and Maize) Pulses- (Gram, Arhar and Pea) Vegetables- (Potato, Tomato and Onion)
12,13,15-17 Feb	Assignment 1 Fibers- Cotton, Jute and Flax Oils- Groundnut, Mustard and Coconut
19-23,26- 29Feb	Paper1:Genetic engineering and Biotechnology: Tools and techniques of recombinant DNA technology; cloning vectors; genomic and cDNA library
1,2,4-7,9 March	Transposable elements; aspects of plant tissue culture; cellular totipotency, differentiation and morphogenesis; biology of Agrobacterium; vectors for gene delivery and marker genes
11-16March	Paper II: Morphology of plant part used, brief idea of cultivation and uses of the following: Spices- Coriander, Ferula, Ginger, Turmeric, Cloves .

	<p>Cloves</p> <p>Medicinal Plants- Cinchona, Rauwolfia, Atropa, Opium, Cannabis, Neem. Rubber- Hevea; Sugar- Sugarcane. General account and sources of timber; energy plantations and bio-fuels</p> <p>Assignment – 2 & Test</p>
18-22 March	<p>Paper 1: Nitrogen metabolism: Biology of nitrogen fixation; importance of nitrate reductase and its regulation; ammonium assimilation</p>
	<p>Nitrogen metabolismcont.</p>
1-6 April	<p>Lipid metabolism: Structure and functions of lipids; fatty acid biosynthesis; B-oxidation;</p>
8-10,12 April	<p>Lipid metabolism; saturated and unsaturated fatty acids; storage and mobilization of fatty acids</p>
15,16,18-20 April	<p>Paper 2 : Botanical description and processing of Beverages- Tea and Coffee.</p>
22-27,29,30 April	<p>Revision</p>

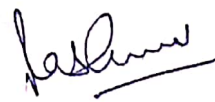
Lesson Plan Biotechnology (Session 2023-24) B.Sc. III (Sem- VI/ Even Sem.) Dr. Rashmi

Jan	Orientation and Syllabus Discussion with Students, General Concept and Historical Landmarks of Microbial Biotechnology	Paper- Microbial Biotechnology Paper- XIII Unit-I
	Screening and Isolation of Microorganisms, Improvement, Preservation and Maintenance of Stains	
Feb	Nutritional Cultivation of Microorganisms, Types of Media, Sterilization Techniques,	
	Microbial Growth Kinetics, Fermentation Concepts and Types, Process Development and Downstream Processing	
March	Microbial Products, Steroid Biotransformation, Microbial Foods, Sewage Treatment Plants	Unit-II
	Biodegradation of Xenobiotic Compounds, Bioconversions Microbial Technology in Agriculture	
April	Biofertilizers, Genetically Engineered Microbes	
	Revision	

Rashmi
(Dr. RASHMI)

Lesson Plan Biotechnology (Session 2023-24) B.Sc. II (Sem. IV/ Even Sem.) Dr. Rashmi

Jan	Orientation of students/Introduction and syllabus discussion, History, Scope and Applications of RDT and Genetic Engineering, Tools of RDT	Paper-Recombinant DNA Technology Paper- VIII Unit-I
	Introduction, Nomenclature and Properties of Gene Cloning Vectors, Transformation Techniques, Screening and Selection of Recombinant Hosts	
Feb	Marker genes, Gene Libraries, DNA Amplification through PCR, DNA Sequencing Techniques	Unit-II
	Genome Mapping, Gene Expression in Prokaryotes Applications of RDT, Transgenic Plants and Animals	
March	History, Scope and Importance of Bioinformatics, Introduction to Genome	Paper-Bioinformatics Paper- IX Unit-I
	Functional Proteomics Computational Genomics	
April	Sequencing alignment and Database Search using FASTA and BLAST	Unit-II
	Predictive Methods using DNA and Proteins and Sequences Structural Data Bases	


(DR. RASHMI)

Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Organic Chemistry

Class: B.Sc. II (IV SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Infrared (IR) absorption spectroscopy
		II	Molecular vibrations, Hooke's law,
		III	Selection rules, intensity and position of IR bands,
		IV	Measurement of IR spectrum, fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds. Applications of IR spectroscopy in structure elucidation of simple organic compounds.
		V	Amines Structure and nomenclature of amines, physical properties.
2.	February	I	Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines.
		II	Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds.
		III	Gabrielphthalimide reaction, Hofmann bromamide reaction. Electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.
		IV	Diazonium Salts Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO ₂ and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application. Aldehydes and Ketones Nomenclature and structure of the carbonyl group.

3.	March	I	Wittig reaction. Mannich reaction
		II	Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones,
		III	Cannizzaro reaction. MPV, Clemmensen, WolffKishner,
			LiAlH ₄ and NaBH ₄ reductions.
		IV	Physical properties, Comparison of reactivities of aldehydes and ketones.
4.	April	I	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol.
		II	Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,
		III	Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate.,
		IV	Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives.

Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Inorganic Chemistry

Class: B.Sc. III (VI SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Acid Bases: Different concepts of acid and bases
		II	Arrhenius, Bronsted-Lowry concepts of acids and bases
		III	Solvent system and Lewis concept of acids and bases Relative strength of acids and bases
		IV	
		V	Leveling solvents
2.	February	I	Hard and soft acids and Bases,
		II	Applications of HSAB principle ,
		III	Organometallic compounds -Classification,
		IV	Nomenclature Organometallic compounds, Nature of bonding,
3.	March	I	Metal carbonyl- Bonding and nomenclature
		II	Bioinorganic chemistry: role of metal ions in biological system,

		III	Metalloporphyrin, nitrogen fixation, uses
		IV	Silicones: Classification, Nomenclature, Nature of bonding
April		I	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		II	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		III	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		IV	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
			Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
			Test

Lesson Plan (January 2024 – April 2024)

Name of Assistant Professor: Ms. Ankita

Subject: Inorganic Chemistry

Class: B.Sc. II (IV SEM)

S.N	Month	Week	Topic
1.	January	I	Introduction to Chemistry of f-block elements, Introduction to Lanthanide
		II	Lanthanides: Electronic structure, oxidation states,
		III	ionic radii and Lanthanides contraction
		IV	Complex formation
		V	Occurrence and isolation of Lanthanides
2.	February	I	Isolation of Lanthanides
		II	Lanthanide compounds
		III	Actinides: General features and chemistry of actinides
		IV	Chemistry of separation of Np, Pu, and Am from U, Chemistry of separation of Np, Pu, and Am from U,
3.	March	I	Comparison of properties of Lanthanides and Actinides and with transition elements
		II	Theory of qualitative and quantitative analysis-1

4.	April	III	Chemistry of analysis of various acidic radicals
		IV	Chemistry of identification of acid radicals in typical combination,
		I	Chemistry of analysis of various basic radicals
		II	Chemistry of interference of acid radicals including their removal in the analysis of basic radicals
		III	Common ion effect, solubility product
		IV	Theory of precipitation, theory of post-precipitation
			Purification of precipitation
			Test

LESSON PLAN OF PHYSICAL CHEMISTRY FOR B.Sc. 6th SEMESTER

NAME OF LECTURE:-DR.PARVESH GUPTA

SUBJECT: - PHYSICAL CHEMISTRY

SESSION -2023-24 (January 2024 – April 2024)

SR.NO.	DATE	TOPIC
1	January 1 st week	Introduction to statistical mechanics Need for statistical thermodynamics, thermodynamic probability
2		Maxwell Boltzmann distribution statistics
3	January 2 nd week	Born oppenheimer approximation, partition function and its physical significance
4		Factorization of partition function and ensemble.
5	January 3 rd week	Part 2 nd :- Photochemistry:- Interaction of radiation with matter, difference between thermal and Photochemical processes.
6		Laws of photochemistry: Grotthus-Drapper law, Stark- Einstein law (law of photochemical equivalence),
7	January 4 th week	Jablonski diagram depicting various processes occurring in the excited state, qualitative description of fluorescence
8		phosphorescence, non-radioactive processes (internal conversion, intersystem crossing)
9	January 5 th week	quantum yield, photosensitized reactions-energy transfer Processes (simple examples).
10		Photo chemical equilibria, photo inhibitors and photo stationary state
11	February 1 st week	Difference between phosphorescence and fluorescence, luminescence. Example of photochemical reactions and their mechanism.
12		Quenching of fluorescence –stern volmer equation.
13		Unit 2 nd :- Solutions, Dilute Solutions and Colligative Properties:- introduction, mode of expressing the concentration of a solution, molar free energy,
14	February 2 nd week	Fugacity and activity and activity coefficient. Ideal and non-ideal solutions,
15		Dilute solutions, Raoult's law. Colligative properties: (i) relative lowering of vapour pressure (
16	February 3 rd week	Thermodynamic derivation of relative lowering of vapour pressure.
17		Experimental determination of l.w.vapour pressure, elevation in boiling point.
18	February 4 th week	Experimental determination in elevation in boiling point.

19		Relation between l.w.vapour pressure and elevation in boiling point.
20	March week 1 st	depression in freezing point.. Experimental determination in depression in freezing point
21	March week 2 nd	Thermodynamic derivation of relation between amount of solute and elevation in boiling point and depression in freezing point..
22	March week 3 rd	Osmotic pressure, osmosis, and law of osmotic pressure. semi permeable membrane
23	March week 4 th	Thermodynamic derivation of Osmotic pressure
24	April week 1 st	Experimental determination of Osmotic pressure
25		Applications in calculating molar masses of normal, dissociated and associated solutes in solution
26	April week 2 nd	Part 2 nd :- Phase Equilibrium:- Statement and meaning of the terms – phase, component and degree of freedom
27	April week 3 rd	thermodynamic derivation of Gibbs phase rule, phase equilibria of one component system –Example – water system
28		Example – sulphur system, Phase equilibria of two component systems
29	April week 5 th April week	solid-liquid equilibria, simple eutectic Example Pb-Ag system, desilverisation of lead.
30		Test

LESSON PLAN OF PHYSICAL CHEMISTRY FOR B.Sc. 4th SEMESTER

NAME OF LECTURE:-Dr.Parvesh Gupta

SUBJECT: - PHYSICAL CHEMISTRY

January 2024 – April 2024

SR.NO.	DATE	TOPIC
1	January 1 st week	UNIT 2 ND : Electrochemistry; - Electrolytic and Galvanic cells - reversible & irreversible cells.
2	January 2 nd week	Electrode Potential, Measurement of standard electrode Potential and emf of the cell and its measurement
3	January 3 rd week	Standard cell- weston standard cell, electrical energy and emf of reversible cell.
4	January 4 th week	Conventional representation of electrochemical cells. Calculation of thermodynamic quantities of cell reaction (ΔG , ΔH , change in entropy & K).
5	January 5 th week	reference electrode and electrochemical series and its application.
6		Activity and activity coefficient , Types of reversible electrodes - metal-metal ion, gas electrode, metal -insoluble salt- anion and redox electrodes
7	February 1 st week	Types of reversible electrodes redox electrodes Electrode reactions, Nernst equations.
8		Effect of electrolytic concentration and temp. On electrode potential, derivation of cell EMF and single electrode potential
9	February 2 nd week	Derivation of equilibrium constant from Nernst equation.
10		Electrolytic polarization-concentration polarization.
11	February 3 rd week	Decomposition voltage or decomposition potential.
12		Standard Hydrogen electrode, reference electrodes, standard electrode potential, sign conventions
13	February 4 th week	Concentration cells with and without transference, liquid junction potential and its measurement
14		Applications of EMF measurement in solubility product and potentiometric titrations using glass electrode
15	March 1 st week	More stress on numerical problems
16		Numerical on the bases of Ecell and E0cell and nernst equation.
17	March 2 nd	TEST

18	week	UNIT 1 ST : Thermodynamics:-INTRODUCTION FROM 1 ST LAW OF THERMODYNAMIC.
19	March 3 rd week	Second law of thermodynamics, need for the law, different statements of the law,
20		CYCLIC PROCESS, CARNOT CYCLIC AND ITS EFFICIENCY.
21	March 4 th week	Carnot's theorem, Thermodynamics scale of temperature.
22		Concept of entropy entropy as a state function, entropy as a function of V & T, entropy as a function of P & T.
23	April 1 st week	Entropy CHANGE IN reversible and irreversible process.
24		Entropy CHANGE IN accompanying phase transition mixing of ideal gases.
25	April 2 ND	Standard entropy and standard change in a chemical reaction.
26		Gibbs free energy or Gibbs free energy function. Variation of work function with temp.and pressure.
27		entropy change in physical change, entropy as a criteria of spontaneity and equilibrium
28	April 3 rd	Third law of thermodynamic s: Nernst heat theorem, statement of concept of residual entropy
29	April 4 th	evaluation of absolute entropy from Heat capacity data. Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities, G as criteria for thermodynamic equilibrium and spontaneity
30		Its advantage over entropy change, Variation of G with P, V and T
31		Test of 1 st unit.

Govt. PG College, Sec-1, Panohkula
Department of Chemistry

Lesson Plan : B.Sc. III (VI SEM) NM&Med

Session: 2023-2024 Even Semester

Name of Associate Professor: Ms. Meenakshi Nirman

Subject: Inorganic Chemistry

S.N	Month	Week	Topic
1.	March	I	Introduction to Acid Bases: Different concepts of acid and bases, Arrhenius, Bronsted-Lowry concepts of acids and bases, Solvent system and Lewis concept of acids and bases
		II	Relative strength of acids and bases, Leveling solvents Hard and soft acids and Bases, Applications of HSAB principle
		III	Organometallic compounds -Classification, Nomenclature Organometallic compounds, Nature of bonding,
		IV	Metal carbonyl- Bonding and nomenclature
2.	April	I	Bioinorganic chemistry: role of metal ions in biological system, Metalloporphyrin, nitrogen fixation, uses
		II	Silicones: Classification, Nomenclature, Nature of bonding
		III	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		IV	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses
		V	Phosphozenes: Classification, Nomenclature, Nature of bonding, uses

Meenakshi Nirman

Govt. PG College, Sec-1, Panchkula
Department of Chemistry

Lesson Plan : B.Sc. II (IV SEM) NM&Med

Session: 2023-2024 Even Semester

Name of Associate Professor: Ms. Meenakshi Nirman

Subject: Inorganic Chemistry

Month	Week	Topic
March	I	Introduction to Chemistry of f-block elements, Introduction to Lanthanide, Lanthanides: Electronic structure, oxidation states,
	II	Ionic radii and Lanthanides contraction, Complex formation
	III	Occurrence and isolation of Lanthanides, Isolation of Lanthanides, Lanthanide compounds
	IV	Actinides: General features and chemistry of actinides
April	I	Chemistry of separation of Np, Pu, and Am from U, Comparison of properties of Lanthanides and Actinides and with transition elements
	II	Theory of qualitative and quantitative analysis-1 Chemistry of analysis of various acidic radicals
	III	Chemistry of identification of acid radicals in typical combination, Chemistry of analysis of various basic radicals
	IV	Chemistry of interference of acid radicals including their removal in the analysis of basic radicals Common ion effect, solubility product
	V	Theory of precipitation, theory of post-precipitation Purification of precipitation

Meenakshi Nirman

Govt. PG College, Sec-1, Panchkula
Department of Chemistry

Lesson Plan : B.Sc. II (IV SEM) NM&Med

Session: 2023-2024 Even Semester

Name of Associate Professor: Ms. Meenakshi Nirman

Subject: Organic Chemistry

Month	Week	Topic
March	I	Introduction to Infrared (IR) absorption spectroscopy Molecular vibrations, Hooke's law, Selection rules, intensity and position of IR bands,
	II	Measurement of IR spectrum, fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds. Applications of IR spectroscopy in structure elucidation of simple organic compounds.
	III	Amines Structure and nomenclature of amines, physical properties. Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines.
	IV	Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds.
	V	Gabriel phthalimide reaction, Hofmann bromamide reaction. Electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.
April	I	Diazonium Salts Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by OH, F, Cl, Br, I, NO ₂ and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application. Aldehydes and Ketones Nomenclature and structure of the carbonyl group.

Meenakshi Nirman

		II	<p>Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides. Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate. Physical properties, Comparison of reactivities of aldehydes and ketones.</p>
		III	<p>Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives.</p>
		IV	<p>Wittig reaction. Mannich reaction. Oxidation of aldehydes, Baeyer- Villiger oxidation of ketones,</p>
		V	<p>Cannizzaro reaction. MPV, Clemmensen, WolffKishner, LiAlH₄ and NaBH₄ reductions.</p>

E. Suresh

Physics Department-Lesson Plan
(Even Semester January 2024 to April 2024)

B.Sc. II (Non-Med)

(Dr. Vidhi Mann)
Paper – I (Statistical Physics)

Month and Weeks	
JANUARY Week 1	Unit - I Microscopic and Macroscopic systems. Probability, statistical probability. A-priori probability
Week 2	Tossing of 2,3 and any number of Coins. Permutations and combinations, distributions of N distinguishable particles in two boxes of equal size.
Week 3	Micro and Macro states. Thermodynamical probability. Constraints and Accessible states. Statistical fluctuations, general distribution of distinguishable particles in compartments of different sizes
Week 4	Condition of equilibrium between two systems in thermal contact-- β parameter. Entropy and Probability (Boltzmann's relation). Numerical Practice. TEST 1
Jan/Feb Week 5	Unit –II: Statistical Physics II Postulates of statistical physics. Phase space. Division of Phase space into cells, three kinds of statistics
FEBRUARY Week 6	M. B. statistics applied to an ideal gas in equilibrium- energy distribution law, speed distribution law, velocity distribution law, Expression for average speed, r.m.s. speed.
Week 7	Expression for average velocity, r. m. s. velocity, most probable energy & mean energy for Maxwellian distribution. Numerical Practice.
Week 8	Unit-III: Quantum Statistics Need for Quantum Statistics, Bose-Einstein energy distribution law... Application of B.E. statistics to Planck's radiation law B.E. gas
Feb/March Week 9	B. E. Gas Degeneracy and B.E. Condensation.
MARCH Week 10	Fermi Dirac energy distribution law, F.D. gas and Degeneracy, Fermi energy and Fermi temperature

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Week 11	Fermi Dirac energy distribution law for electron gas in metals. Zero point energy. Zero point pressure and average speed (at 0 K) of electron gas
Week 12	Specific heat anomaly of metals and its solution. M.B. distribution as a limiting case of B.E. and F.D. distributions. Comparison of three statistics. Numerical Practice- ASSIGNMENT
Week 13	HOLI VACATIONS
APRIL Week 14	Unit IV: Theory of Specific Heat of Solids: Dulong and Petit law. Derivation of Dulong and Petit law from classical physics. Specific heat at low temperature.
Week 15	Einstein theory of specific heat. Criticism of Einstein theory. Debye model of specific heat of solids. success and shortcomings of Debye theory
Week 16	Comparison of Einstein and Debye theories.. Numerical Practice- TEST 2
Week 17	REVISION

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Incharge

Uranu
HOD

Weeks	(Dr. Saroj Rani) Paper – II (Wave and Optics-II)
Week 1	Paper II : Unit II- Fourier theorem and Fourier series. evaluation of Fourier coefficient. importance and limitations of Fourier theorem. even and odd functions..
Week 2	Fourier series of functions $f(x)$ between (i) 0 to 2π . (ii) $-\pi$ to π Fourier series of functions $f(x)$ between (iii) 0 to π . (iv) $-L$ to L .. complex form of Fourier series.
Week 3	Application of Fourier theorem for analysis of complex waves. solution of triangular waves. solution of rectangular waves . half wave rectifier.full wave rectifier outputs. Fourier integrals. Numerical Practice
Week 4	Unit III-Fourier transforms Fourier transforms and its properties. Application of Fourier transform (i) for evaluation of integrals (ii) for solution of ordinary differential equations. $f(x) = e^{-x^2/2}; X < a; f(x) = 0; X > a$

	$f(x) = e^{-x^2/2}$; $X < a$; $f(x) = 0$; $X > a$
Week 5	Geometrical Optics I : Matrix methods in paraxial optics. Effects of translation and refraction. derivation of thin lens and thick lens formulae unit plane. nodal planes. system of thin lenses. Numerical Practice. Assignment
Week 6	Unit-IV: Geometrical Optics II: Chromatic spherical. coma. astigmatism and distortion aberrations and their remedies.
Week 7	Fiber Optics Optical fiber. Critical angle of propagation. Mode of Propagation.
Week 8	Acceptance angle. Fractional refractive index change. Numerical aperture. Types of optics fiber. Normalized frequency. Pulse dispersion. Attenuation
Week 9	Applications. Fiber optic Communication. Advantages. Numerical Practice Test
Week 10	Paper II Unit I: Polarization by reflection. refraction and scattering. malus law. Double refraction.
Week 11	Huygens's Theory. analysis of polarized light. Nicol prism
Week 12	Quarter wave plate. half wave plate. Plane. circularly and elliptically polarized light.
Week 13	Optical activity. Fresnel's theory of optical rotation. Specific rotation and polarimeters. Numerical Practice. Assignment
Week 14	Paper- I Revision and Test
Week 15	Paper- II Revision and Test

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Incharge

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HOD

Physics Department-Lesson Plan

(Even Semester 2023-2024)

January-April

B.Sc. III (Non-Med)

Teacher's Name - SEEMA CHOPRA

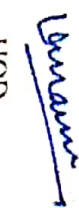
Weeks	Paper I and II (Solid state and Nanophysics Atomic and Molecular Physics)
Week 1	Paper II: Unit I : Atomic Spectroscopy -introduction, emission and absorption spectra. Bohr's Atomic Model spectra of hydrogen atom, complete explanation of spectra, Rydberg constant mass shortcoming of Bohr's model, Wilson sommerfeid quantization rule, Bohr's corresponding model
Week 2	shortcoming of this model, vector atom model, various quantum no. associated with vector model Short coming of this model, Numerical Practice.
Week 3	Unit II: Vector Atom Model (single Valence electron)- Introduction Orbital and magnetic dipole moment, Larmor's precession and theorem, Penetrating and non penetrating model, Quantum defect and spin orbit interaction energy.
Week 4	Hydrogen line spectra, Main feature of alkali spectra, Absorption spectra of alkali atom intensity rule for doublets Comparison of alkali and hydrogen spectra, Numerical Practice, Assignment, TEST
Week 5	Unit III: Vector atom model for two valence electron LS Coupling and Interaction Energy in LS coupling JJ coupling and Interaction Energy in JJ coupling.
Week 6	Comparison of spectral terms in LS and JJ coupling Hyperfine structure of spectral line and its origin, Nuclear Spin Numerical Practice.
Week 7	Unit IV Atom in external field (Introduction) Experimental set up for Zeeman effect, Normal Zeeman effect (classical and quantum mechanical), Anomalous Zeeman Effect lande's g factor)
Week 8	Zeeman pattern of Z1 and Z2 lines of Na atom, Paschen -Back effect of a single valence electron system, Weak Field Stark Effect of hydrogen atom
Week 9	Paper I: Unit I : Crystalline and glassy forms, liquid crystal, crystal structure, periodicity, translation vector and axes, unit cell, primitive cell, Wiener Sietz primitive cell symmetry operation for a two dimensional crystal, Bravais lattice for two dimension, Bravais lattice for three dimension, crystal plane and miller indices, Inter planar spacing.

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Week 10	crystal structures Numerical Practice
Week 11	Unit II : X-ray Diffraction. Bragg Diffraction K spacing Reciprocal lattice and its physical significance. reciprocal lattice to a simple cubic lattice. reciprocal lattice to a body centered cubic Reciprocal lattice to a face centered cubic effect. critical magnetic field. Meissner effect. London and pipard's equation.
Week 12	Unit III: Historical introduction. Survey of superconductivity. superconducting system. high Tc superconductor. isotopic effect. classification of superconductor. BCS Theory and flux quantization BCS Theory and flux quantization. Josephon effect. application and limitation of superconductivity. power application. numerical practice
Week 13	Unit IV: Nanophysics definition. length scale. importance of Nanoscale and technology. history. benefits and challenge in molecular manufacturing
Week 14	Molecular assembler concept. vision and objective of nanotechnology. Application of nanotechnology in different field .understanding advanced capabilities. automobiles. electronics. materials. medicine
Week 15	Revision of 1 st PAPER solid state and nanophysics .numerical practice
Week 16	Revision of 2 nd PAPER atomic and molecular physics. numerical practice

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