

Lesson plan for B.A ENG (H) 3rd Semester. 2023-24

POETRY

Dr. Lalita Gaur

Dates	Content
July,23 -	- Unit II Sir Edward Dyer: My Mind To Me a Kingdoor/sj Heury Howard Earl of Surrey-Youth and Age - Howard earl of Surrey : youth and age
August,23	Christopher Marlowe The Passionate Shepherd to His Lovel William Shakespeare: They that have Power to Hurt and will Do Nonel - Thomas Campion Fain Would I Wed
September,23	- 1 Sir Philip Sidney Let Not Old Age Disgrace My High Desirel - Edmund Spenser: One day I wrote her name upon the strand ASSIGNMENT ON THE SYLLABUS COVERED
October,23	Unit III Donne: -Air and Angles -Of might those sighs and tears return again Jealousy -The Autumnal -Sweetest love, I do not go-A Fever Class test on the previously covered syllatius
November,23-	Unit 1 Chaucer: (i) Prologue to The Canterbury Tales (Lines 1-42) (ii)-The Words of 05.12.2022 the Host to the Company (iii) Prologue to the Lawyer's Tale Assignment I - Revision of the whole syllabus till exam

Lalita Gaur

Lesson plan for B.C.A 3rd Semester, 2023-24

COMMUNICATION SKILL

Dr. Lalita Gaur

DATE	Content
July 2023	Introduction to Basics of Communication: Communication and its various definition, features/characteristics of the communication, process of communication, communication model and theories, barrier to effective communication Activity: Class Demo by every student
AUGUST 2023	Improving LSRW: introduction, verbal and nonverbal communication, listening process, group discussion, forms of oral presentation, self-presentation, dyadic communication, SC's of communication, Developing dialogues, soft skill. Activity: Group Discussion
September 2023	Basic vocabulary: how to improve vocabulary, prefix/suffix, synonyms/antonyms, one word substitution, spellings Developing fluency: grammar (conjunction, auxiliaries, prepositions, articles, tenses.....), language games. Activity: Two assignments on grammar and communication theories
October 2023	Proper use of Language: The Communication Skills, The effective Speech. Effective self-presentation & facing interview. The interview process Activity: Class room practice of interview process
November 2023	Presentation by students Class test on the syllabus covered

Lalita Gaur

Lesson plan for B.A ECO (H) 1" Semester, 2023-2024

LANGUAGE AND LITERATURE

Dr. Lalita Gaur

DATE	Content
July 2023	"Let Me Not to the Marriage of True Minds ", " Death Be Not Proud"
AUGUST 2023	"On His Blindness", "Know Then Thyself, " The Little Black Boy"
September 2023	"Three Years She Grew in Sun and Shower" Assignment will be given based on above poems and a class test will be organized
October 2023	Phonetics: Introduction to the Sound System of English: Phonetics Symbols, Organs of Speech, class test on transcription will be given.
November 2023	Grammar: Parts of Speech, Types of Sentences, Common Errors, Technical Writing (application writing, business letter) Assignment on Grammar will be given
December 2023	Revision of the whole syllabus

Kalita Gaur

Lesson plan for B.A ENG (H) 1st Semester, 2022-23
PHONETICS

Dr. Lalita Gaur

DATE	Content
July 2023	Organs of Speech (i) Basic Concepts: Phoneme, Vowel, Consonant and Syllable Activity: class presentation of organs of speech
AUGUST 2023	Place of Articulation, Manner of Articulation, Brief Description of Vowels Activity: Class test and Assignment on the syllabus covered
September 2023	Place of Articulation, Manner of Articulation, Brief Description of Vowels Activity: Class test and Assignment on the syllabus covered
October 2023	Phonemic transcription of simple words in D (vii) Word Stress Activity: class test on transcription
November 2023	Verbs: i) ii) Main and Auxiliaries Linking (or equivalent) Intransitive and Transitive iii) Finite and Non Finite 3 Verb Patterns Activity: Blackboard practice on verbs
December 2023	Types of Sentences: Simple, Complex and Compound with particular reference to Nouns, Relatives, Conditional and Co-ordinate clauses Phrasal Verbs Activity: Practice test through blackboard
JAN 2023	Revision of the whole syllabus

Lalita Gaur

Lesson plan for B.A ENG (H) 1" Semester, 2022-23

FICTION

Dr. Lalita Gaur

DATE	Content
July 2023	Introduction 1 Meaning and Types of Fiction, Story Plot, Point of view.Character, Setting, Tone and Style, Theme, Symbols, Narrative Technique Prophecy and Fantasy. Types of Characters, Rhythm
AUGUST 2023	Nathaniel Hawthorne John Steinbeck" Araby"" A and P" A Rose for Emily Activity: Class test
September 2023	"Gimpel the Fool"" Young Goodman Brown" Activity: Assignment on previously covered syllabus
October 2023	Ernest Hemingway The Sun Also Rises Activity: Group Discussion on theme title and symbol
November 2023	"The Chrysanthemums" Activity: Assignment on the syllabus covered
December 2023	Revision of the whole syllabus

Lalita Gaur

LESSON PLAN OF DEPARTMENT OF ENGLISH

Name of College: Government College sec9, Gurugram

Academic Session :2023-24 Semester: Even (January-May, 2024)

Name of Teacher: Dr. Lalita Gaur

Subject: Drama Class: B.A. Eng Hons SEMESTER-II

January 2024

Unit 1- Aspects of drama

Exercises

Paper pattern Discussion

February 2024

Unit 2- The Merchant of Venice

Explanation of the text

Discussion on questions and Oral Tests

March 2024

Unit 3- The Marriage Proposal

Explanation of the text

Discussion on important question

Class test and Assignment

April 2024

Unit 4 The post office

Explanation of the text

Revision and assignments

Lalita Gaur

LESSON PLAN OF DEPARTMENT OF ENGLISH

Name of College: Government College, Sec9, Gurugram

Academic Session :2023-24 Semester: Even (January-May, 2024)

Name of Teacher: Dr Lalita Gaur

Subject: Essentials of Communication Class: B.A.(H) SEMESTER-2

January 2024

Unit 1- Introducing Communication

- a. Process of communication
- b. Principles of communication
- c. Barriers to communication

Introduction and explanation

Discussion on questions

Class test and assignment

February 2024

Unit 2- Communicative Grammar

- a. Common errors
- b. Foreign words

Unit 3- Communication through mass media

Introduction and explanation

Discussion on questions

Class test and assignment

March 2024

Unit 4- a. Situational communication

- b. Email writing

Introduction and explanation

Discussion on questions

Class test and assignment

April 2024

Unit 5- Written communication

a. Resume writing

b. Letter writing

Introduction and explanation

Discussion on questions

Class test and assignment

Revision

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Discussion on questions
Class test and assignment

April 2024

Unit 5- Written communication

- a. Resume writing
- b. Letter writing

Introduction and explanation

Discussion on questions
Class test and assignment
Revision

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Law

LESSON PLAN OF DEPARTMENT OF ENGLISH

Name of College: Government College, Sec9, Gurugram

Academic Session :2023-24 Semester: Even (January-May, 2024)

Name of Teacher: Dr Lalita Gaur

Subject: English (Poetry) Class: B.A.(H) SEMESTER-4

January 2024

Paper pattern Discussion

Unit1: John Dryden 1.Macflecknoe

2. A song for st. Cicila s day

4. Discussion on questions

5.Class test and Assignment

February, 2024

Unit 2: Alexander Pope- An essay on Man(Epistle 2)

Explanation of text

Discussion on Questions

Class test and Assignment

March 2024

Unit 3: Charlotte Smith: Sonnet: To a Nightingale

Sonnet:To Solitude

Mary Robinson: Life

Explanation of text

Discussion on Questions

Class test and Assignment

April 2024

Unit 3: Sarah Dickson – The Retuned Herd

Mary Montagu- The Lover A Ballad

Mary Leapor- An Epistle to a Lady

Explanation of text

Discussion on Questions

Class test and Assignment

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LESSON PLAN OF DEPARTMENT OF ENGLISH

Name of College: Government College, Sector 9, Gurugram

Academic Session :2023-24 Semester: Even (January-May, 2024)

Name of Teacher: Dr Lalita Gaur

Subject: English Poetry Class: B.A.(H) SEMESTER-6

January 2024

Paper pattern Discussion

Unit 1- W.B. Yeats- Easter 1916

- The Second Coming
- Sailing To Byzantium
- Among School Children

Explanation of text

Discussion on Questions

Class test and Assignment

February 2024

Unit 2 – Philip Larkin – Ambulances

- Church Going
- MCMXIV
- The Explosion

Explanation of text

Discussion on Questions

Class test and Assignment

March 2024

Unit 3- W.H.Auden- Lullaby

- As I Walked Out One Evening
- The Shield Of Achilles
- The Unknown Citizen

Explanation of text

Discussion on Questions

Class test and Assignment

April 2024

Revision

Class test of reference to context

Class test of question answers

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LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English
Class: BA 1st (Sem-2)
Faculty: Dr. Meenakshi Dalal

January 2024	Sentences, Transcription, Pigeons at Day Break The Journey The Refugee
Feb 2024	Modals, Subject Verb Agreement, Bellows for the Bullock, Panch Light, The Child
March 2024	Tag Questions Phrasal Verbs, Punctuation, The Blind Dog, Assignment and test
April 2024	Direct and Indirect Speech, Transcription, Revision

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English Drama and Prose
Class: -B.A Honours 2nd (Sem-4)
Faculty:Dr.Meenakshi Dalal

January 2024	Introduction to Drama The School for Scandal
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Meenakshi Dalal

Feb 2024	Love for Love
March 2024	The spectator essay number 1,2,10,39,40,42,68,82 &144 Joseph Addison and Richard Steele
April 2024	Assignment, revision and test

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject:English

Class: - B. A English Pass 3rd Year (Sem-6)

Faculty: Dr. Meenakshi Dalal

Jan 2024	The Development of Drama
Feb 2024	The Merchant of Venice- Reading and discussion
March 2024	The Merchant of Venice- Reading and discussion
April 2024	Composition skills Assignment, Tests and Revision

Meenakshi

Subject: English Drama
Class: - B. A English Honors 3rd Year (Sem-6)
Faculty: Dr. Meenakshi Dalal

Jan 2024	Introduction to drama
Feb 2024	Murder in the Cathedral
March 2024	Saint Joan Look back in Anger
April 2024	Assignment, Tests and Revision

Meenakshi Dalal



Subject: English Drama
Class: - B. A English Honors 3rd Year (Sem-6)
Faculty: Dr. Meenakshi Dalal

Jan 2024	Introduction to drama
Feb 2024	Murder in the Cathedral
March 2024	Saint Joan Look back in Anger
April 2024	Assignment, Tests and Revision

Meenakshi Dalal

LESSON PLAN 2023-24(ODD SEMESTER)

Subject: English Drama

Class: BA Eng Hons(Sem-3)

Faculty: Dr. Meenakshi Dalal

July/Aug 2023	Introduction to the Drama
Sept 2023	Othello Every man in his Humour
October 2023	A chaste maid in Cheapside
Nov 2023	Test Assignment Revision

LESSON PLAN 2023-24(ODDSEMESTER)

Subject: English Poetry

Class: -B.A Eng hons (Sem-5)

Faculty: Dr.Meenakshi Dalal

July/Aug 2023	Introduction to the Romantic Age
Sept 2023	Lines written in early spring Composed upon west minister bridge

Meenakshi

October 2023	London 1802 To autumn Ode to the west wind England in 1819
Nov 2023	Dover beach Memorial verses April 1850 Test and assignment

LESSON PLAN 2023-24(ODD SEMESTER)

Subject: English

Class: - B. A Pas1st Year (Sem-5)

Faculty: Dr. Meenakshi Dalal

July/ aug 2023	Introduction to the rise of novel
Sept 2023	Kanthapura-Reading and discussion
Oct 2023	Kanthapura-Reading and discussion
Nov 2023	Discussion on literary terms Conditional sentences Assignment, Tests and Revision

Meenakshi

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English

Class: BA 1st (Sem-2)

Faculty: Dr. Meenakshi Dalal

January 2024	Sentences, Transcription, Pigeons at Day Break The Journey The Refugee
Feb 2023	Modals, Subject Verb Agreement, Bellows for the Bullock, Panch Light, The Child
March 2023	Tag Questions Phrasal Verbs, Punctuation, The Blind Dog, Assignment and test
April 2023	Direct and Indirect Speech, Transcription, Revision

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English Drama and Prose

Class: -B.A honours 2nd (Sem-4)

Faculty:Dr.Meenakshi Dalal

January 2024	Introduction to Drama
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Meenakshi Dalal

Feb 2024	Love for Love The school for scandal Richard Steele and Joseph Addison-The Spectator
March 2024	The Spectator essay number 1,2,10,39,40,42,68,82 & 144
April 2024	Assignment, revision and test

LESSON PLAN 2023-24 (EVEN SEMESTER)

Subject: English

Class: - B. A English Pass 3rd Year (Sem-6)

Faculty: Dr. Meenakshi Dalal

Jan 2024	The development of drama
Feb 2024	The Merchant of Venice- Reading and discussion
March 2024	The Merchant of Venice- Reading and discussion
April 2024	Composition skills Assignment, Tests and Revision

Meenakshi Dalal

Subject: English Drama

Class: - B. A English Honors 3rd Year (Sem-6)

Faculty: Dr. Meenakshi Dalal

Jan 2024	Introduction to drama
Feb 2024	Murder in the Cathedral
March 2024	Saint Joan Look back in Anger
April 2024	Assignment, Tests and Revision

Meenakshi Dalal

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English

Class: BA 1st (Sem-2)

Faculty: Vandana Yadav

January 2024	Sentences, Transcription, Pigeons at Day Break The Journey The Refugee
Feb 2024	Modals, Subject Verb Agreement, Bellows for the Bullock, Panch Light, The Child
March 2024	Tag Questions Phrasal Verbs, Punctuation, The Blind Dog, Assignment and test
April 2024	Direct and Indirect Speech, Transcription, Revision

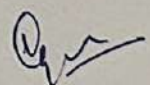
LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: English

Class: -B.A 2nd (Sem-4)

Faculty: Vandana Yadav

January 2024	Introduction to Plays Transcription, The Envoy
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Feb 2023	E-mail Writing, Resume Writing, Before Breakfast, The Monkey's Paw
March 2023	Dialogue Writing, Sentences, Clauses, The Swan Song Assignment and Test
April 2023	Revision

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: History of English Literature

Class: - B. A English Honors 2nd Year (Sem-4)

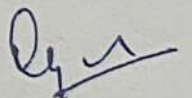
Faculty: Vandana Yadav

Jan 2024	Neo-Classical age Comedy of Manners, John Dryden as a satirist
Feb 2024	The Restoration Age, The Reign of Classicism
March 2024	The 18 th Century Age, The rise of novel, The Revival of Romanticism
April 2024	Assignment, Tests and Revision

Vandana Yadav

Subject: History of English Literature
Class: - B. A English Honors 3rd Year (Sem-6)
Faculty: Vandana Yadav

Jan 2024	Major Trends in 20 th Century Poetry, Georgian Poetry, Modern Novel
Feb 2024	English Novel since 1950 English Drama since 1950 The Problem Play
March 2024	20 th Century English literary Criticism, New Criticism, Post Modernism
April 2024	Feminism Reader Response Theory Assignment, Tests and Revision



Subject: English

Class: - B. Sc. 1st Year(Sem-2)

Faculty: Vandana Yadav

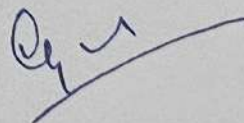
Jan 2024	Translation, Our Civilization
Feb 2024	It's Question Time, An Interview Christian Barnard, Précis Writing
March 2024	Untouchability and Cast System, Inhumanization of war, Seven types of Gender Inequality Assignment and Test

Vandana Yadav

April 2024

Letter Writing,

Revision



ODD
LESSON PLAN 2023-24 (SEMESTER)

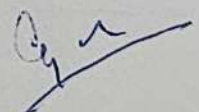
Subject: English
Class: BA 1st (Sem-1)
Faculty: Vandana Yadav

July/Aug 2023	Introduction to speech organs and speech sounds Choosing our universe Are dams the temples of modern india
Sept 2023	The generation gap Language and national identity Wounded plants
October 2023	Playing the English gentlemen Greats books born out of great minds The responsibility of young man
Nov 2023	Bharat mata Test Assignment Revision

ODD
LESSON PLAN 2023-24 (SEMESTER)

Subject: English
Class: -B.A 2nd (Sem-3)
Faculty: Vandana Yadav

July/Aug 2023	Introduction to the types of poetry Poetic forms and devices
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Sept 2023	Sonnet XVII Know then thyself Elegy written in our country church yard Transcription
October 2023	The world is too much with us Ode on a grecian urn My last duchess When you are old
Nov 2023	The bangle sellers Test assignment

ODD

LESSON PLAN 2023-24 (SEMESTER)

Subject: History of English Literature

Class: - B. A English Honors 2nd Year (Sem-3)

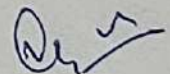
Faculty: Vandana Yadav

July/ aug 2023	Introduction to the history of English literature Age of Chaucer
Sept 2023	Fifteen century English poetry Introduction to 16 century The university wits Jacobean drama
Oct 2023	Spencer's and sonnets English metaphysicals Authorised versions of Bible
Nov 2023	Assignment, Tests and Revision



Subject: History of English Literature
Class: - B. A English Honors 3rd Year (Sem-5)
Faculty: Vandana Yadav

July/Aug 2023	Introduction to the feminism theory
Sept 2023	vindication of the rights of women
Oct 2023	Silly novels by lady novelist Subjections of Womens
Nov 2023	Science and culture Test, assignments



LESSON PLAN (ODD SEM)

Session 2023-24

MCA 3rd Sem

Subject : Machine Learning with Python

Faculty Name: Dr. Neelam Dahiya and Ms. Rakhi Soni

Aug 2023	<p>Machine Learning Introduction: Basic concepts, Designing a learning system, Issues in machine learning. Types of machine learning: Learning associations. Tools and software for machine learning, Introduction to Machine learning Paradigms.</p> <p>Supervised Learning: Introduction to Supervised learning, Supervised Learning concepts, Linear Regression, Logistic regression, K-NN classification, NaiVe Bayesian classifiers; SVM - (Support Vector Machines), Multiclass SVM, Regression Algorithms, Model Evaluation, Model Evaluation: Overfitting & Underfitting.</p>
Sept 2023	<p>Unsupervised Learning: Unsupervised Learning concepts, Clustering approaches, KMeans clustering, Hierarchical clustering, Introduction to Semi Supervised Learning, Self-learning, Co-training, Gaussian Model, Label Propagation, Graph Models, Decision Tree.</p> <p>Assignment 1 Ensembte Learning: Introduction to Ensembte Learning, Different Ensembte Learning Techniques, Bagging Boosting, Random Forests, Stacking, Featurization, Model Selection & Tuning, Feature extraction, Model Defects & Evaluation Metrics, Model selection and tuning, Comparison of Machine Learning models.</p> <p>Presentation Reinforcement Learning: Introduction to Reinforcement Learning, Reinforcement Learning framework, Dynamic programming, Monte Carlo, Temporal difference methods, Q-lea rning, Actor-Critic.</p> <p>Test 1</p>
Oct 2023	<p>Python Programming: Introduction to Python, Basic Syntax, Data Types, Variables, Operators, Input/output, Flow of Control , (Modules, Branching), ll If- else, Nested ifelse, Looping, For, While, Nested loops, Control Structure, Break, Continue, Pass, Strings and Tuples, Accessing Strings, Basic Operations, String slices, Working with Lists, Introduction, Accessing list, Operations, Function and Methods, Files, Modules, Dictionaries, Functions and Functional Programming, Declare, assign and retrieve values from Lists, Introducing Tuples, Accessing tuples, matplotlib, seaborn.</p> <p>Assignment 2</p>
Nov 2023	<p>Advanced Python: Object Oriented, OOPs concept, Class and object, Attributes, Inheritance, Overloading, Overriding, Data hiding, Operations Exception, Exception Handling, Python Libraries, Data migration and visualization: Pandas and Matplotlib, Database Interaction in Python, Case Studies: Mathematical computing with Python, Data migration and visualization: Pandas and Matplotlib, Pycharm, Anaconda, Data manipulation with Pandas.</p>

Neelam

LESSON PLAN (ODD SEM)

Session 2023-24

MCA 3rd Sem (16ENVO2)

Subject : Open Elective(Disaster Management)

Faculty Name: Dr. Neelam Dahiya

Aug 2023	<p>Disaster- Causes and phases of disaster, Rapid onset and slow onset disasters. Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Seismic activities. Changes in Coastal zone, coastal erosion, beach protection.</p> <p>Assignment 1</p>
Sept 2023	<p>Floods and Cyclones: causes of flooding, Hazards associated with flooding. Flood forecasting. Flood management, Integrated Flood Management and Information System (IFMIS), Flood control. Water related hazards.</p> <p>Test 1</p>
Oct 2023	<p>Coastal erosion due to natural and manmade structures. Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Changes in Coastal zone, Seismic activities, Coastal erosion, beach protection. Coastal erosion due to natural and manmade structures. Unit III- .Earthquakes: Causes and characteristics of ground-motion.</p> <p>Presentation</p> <p>Structure and nature of tropical cyclone, Tsunamis – causes and physical characteristics, mitigation of risks. Mitigation efforts: UN draft</p> <p>Assignment 2</p>
Nov 2023	<p>Mitigation efforts: UN draft resolution on Strengthening of Coordination of Humanitarian Emergency Assistance, International Decade for Natural Disaster Reduction (IDNDR),</p> <p>Earthquake hazards and risks, Volcanic landforms, eruptions, early warning from satellites, risk mitigation and training, Landslides</p> <p>Policy for disaster reduction, problems of financing and insurance</p> <p>Test 2</p>

Neelam

LESSON PLAN (ODD SEM)

Session 2023-24

MCA 3rd Sem

Subject : Advance Computer Architecture

Faculty Name: Ms. Rakhi Soni

Aug 2023	Evolution of Computer Architecture: Introduction of computer architecture, Elements of Modern Computers, Evolution of Computer Architectures, Classification of parallel computers, System attributes to performance. Program and Network Properties: Conditions of Parallelism - data and resource dependences, Bernstein's conditions, hardware and software parallelism. Program Flow Mechanisms - control flow versus data flow, data flow architecture, demand driven mechanisms, comparison of flow mechanisms" Assignment 1
Sept 2023	System Interconnect Architectures: Network properties and routing, Static connection Networks -Linear Array, Ring & Chordal Ring, Barrel Shifter, Fat Tree, Mesh & Torus, Systolic Arrays, Hypercubes. Presentation Dynamic connection Networks: Digital Buses, Switch modules, MINs, Omega Network, Baseline Network, Crossbar Network. U Test 1
Oct 2023	Assignment 2 Memory Hierarchy Design: Memory hierarchy, Inclusion, coherence & locality; memory capacity planning; Virtual Memory technology - Models, TLB, Paging and Segmentation; Cache Memory Organization - Cache basics & cache performance, cache addressing models & mapping, multilevel cache hierarchies, interleaved memory.
Nov 2023	Multiprocessor and Multicomputer Architectures: Multiprocessor System Interconnects - Hierarchical bus systems, Crossbar Switch and Multiport memory, Multistage and Combining networks; Symmetric shared memory architectures, distributed shared memory architectures, Cache coherence problem, Snoopy cache coherence protocol, directory-based protocols; Multicomputer Generations, Message passing mechanisms - message routing schemes, deadlock and virtual channels, flow control strategies, multicast routing algorithms.

Neehar

Lesson plan Session 2023-2024 Ms Venu

Class: MCA 3rd Sem

Subject: The Enterprise Architecture with .NET

Subject code: MCA-303

Aug 2023	<p>Unit 1 Understanding Previous Technologies, Benefits of .NET Framework, Architecture of .NET Framework 4.0, .NET Execution EngineComponents of .NET Framework 4.0</p> <p>Unit 2 Classes and Objects: Creating a Class, Creating an Object, Using this Keyword,</p>
Sept 2023	<p>.NET Execution EngineComponents of .NET Framework 4.0: CLR, CTS, Metadata and Assemblies, .NET Framework Class Library, Windows Forms, ASP .NET and ASP .NET AJAX, ADO .NET, Windows workflow Foundation, Windows Presentation Foundation, Windows Communication Creating an Array of Objects, Using the Nested Classes, Defining Partial Classes and Method, Returning a Value from a Method and Describing Access Modifiers. Static Classes and StaticMembers, Properties: Read-only Property, Static Property, Creating a Simple C# Console Application, Identifiers and Keywords. System Data Types, Variables and Constants: Value Types, Reference Types.</p> <p>Assignment 1</p>
Oct 2023	<p>Understanding Type Conversions, Boxing and UnBoxing. Namespaces, The System namespace, .NET Array Types. Indexers, Structs: Syntax of a struct and Access Modifiers for structs, System.Object Class. Encapsulation , Inheritance and Constructors , Polymorphism.</p> <p>Unit 3 Events: Event Sources, Event Handlers, Events and Delegates, Multiple Event Handlers. Exception Handling: The try/catch/throw/finally statement, Custom Exception. System.Exception, Handling Multiple Exception Understanding Control Properties and Layout, Multiple Document Interface (MDI) Windows. Introduction, Web Basics, Multitier Application Architecture,</p> <p>Test 1</p>
Nov 2023	<p>Your First Web Application: Building Web-Time Application, Examining Web-Time. aspx's Code- Behind File, Understanding Master pages, ADO.NET: Describing the Architecture of ADO.NET, Entity Framework. Creating Connection. Strings: Syntax for Connection Strings.Creating a Connection to a Database: SQL Server Database, OLEDB Database, Creating a Command Object. Working with DataAdapters: Creating DataSet from DataAdapter Unit 4- Windows Forms: Introduction, Windows Forms, A Simple Event- Driven GUI,Standard Web Controls: Designing a Form, Validation</p>

	<p>Controls, GridView Control, Drop Down List, Session Tracking, ASP.NET. AJAX: Exploring AJAX, Need for AJAX, AJAX and other Technologies, AJAX Server Controls, Script Manager control, Update Panel, Update Progress Control, Creating Simple Application using AJAX Server Control</p>
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LESSON PLAN (ODD SEM)

Session 2023-24

MCA 1st Sem

Subject : Data Structures and Algorithms
Dr. Geethika

Faculty Name: from october 2023 onwards Venu

August 2023	<p>Data Types: Primitive, Composite and Abstract Data Types, Data Structures: Concept, Classification, and importance; Data Structures vs Data Types, Linear vs Non Linear Data Structures.</p> <p>Single Linked List; Operation on Linked List.</p>
September 2023	<p>Single and Multidimensional Arrays; Address Calculation using column and Row major ordering; various operation on arrays; Vectors; Sparse Matrix; Application of Arrays, Implementation of Arrays in C/C++</p> <p>Assignment 1</p> <p>Linked stack and queue. Polynomial Representation and Manipulation using Linked List. Circular Linked List. Doubly Linked List. Implementation in C/C++. Trees: Concept, Representation and Application of Trees, Forest, Binary Tree, Threaded Binary Tree, Representation of a general Tree, Conversion of Forest into Tree, In order, preorder and Postorder Traversal. Binary Search Tree.</p> <p>Presentation/Test</p>
October 2023	<p>Representation of stacks and queues using array and linked list, Circular queues, Priority queues and Dequeue.</p> <p>AVL Tree, B Tree, B+ Tree, B* Tree. Recursive algorithms, Heap operations, Binomial heaps, Fibonacci heaps, Skew heaps, heap set.</p> <p>Assignment 2</p> <p>Application of Stack: Conversion of infix to postfix and prefix expression. Evaluation of postfix expression using stacks; Implementation in C/C++.</p> <p>Adjacency matrix, Adjacency List;</p> <p>Test</p>
November 2023	<p>Types of Graphs; Pths: Euler Graph, Hamiltonian Paths and circuits; Cut-sets, Connectivity and Separability, Planar Graph, Isomorphism, Graph Coloring, Covering and Partitioning. BFS, DFS, MST: Prim's and Krushkal's algorithm; Shortest Path Algorithm : Dijkstra's and Floyd's algorithm;</p> <p>Topological Sort, Max Flow: Ford Fulkerson Algorithm, max flow-min cut. Tutorials and Problems Session.</p> <p>Revision</p>

LESSON PLAN (ODD SEM)

Session 2023-24

MCA 1st Sem (Bridge Course)

Subject : Computer Fundamentals and Programming in C (MCA 1st Bridge Course)

Faculty name: Ms. Priyanka Balhara

August 2023	Concept of data & information. Components of Computer, Input & Output Device, Component of CPU, Memory & Storage Devices, Classification of Computers.
September 2023	Advantage & Limitation of Computer, Application of Computer, Social Concern of Computer Technology: Positive and Negative Impacts. Computer Crimes. Virus and their remedial Solutions. System & Application Software, Overview of Operating System, Programming Language: Machine, Assembly and High-Level Language, 4GL. Language Translator. Linker & Loader. Presentation 1 Problem Solving: Problem Identification. Analysis, Algorithm, Flowcharts, Pseudo codes. Decision Tables. Program Coding. Program Testing and Execution. C Programming Fundamentals: Keywords, Variables and Constants, Structure of a C program. Assignment 1
October 2023	Operators & Expressions: Arithmetic, Unary, Logical, Bit-wise, Assignment & Conditional operator. Test Decision Making: If....else, Else If Ladder, Switch, break, Continue and Goto Statement. Loops: While, do....while, for statements. Nested Loops. Functions: Defining and Accessing user defined functions, Library Functions, Function Prototype, Passing Arguments, Assignment 2
November 2023	Passing array as an argument. Recursion. Use of a Library functions. Macro vs Functions. Pointers in C.



**Nov
2023**

The Network Layer: Design Issue: Store and forward, Packet Switching, Service to Transport Layer, Connectionless v/s Connection oriented Service; Routing Algorithms. IPv4 and IPv6.

The Internet Transport Protocols: TCP, UDP, SCTP, Flow control, Error Control and Congestion control in TCP and SCTP.

The Application Layer: DNS, Resolution: ARP, RARP, HTTP, EMAIL, SMTP, POP, IMAP, TELNET and FTP.

Revision



Lesson Plan for Session 2023-2024(ODD Sem)

Faculty :Sanjay Katyal Assistant Professor

Teaching Session 1st : AUGUST 2024 to NOVEMBER 2024

MCA 102 System Software and Operating System

Class:MCA 1ST Semester

AUGUST

Introduction: System V/s Application Software, Relative advantage and disadvantages of Machine, Assembly and High-Level Languages; Language Translators: Assembler, Compiler and Interpreter; Macros, Debuggers, Text editors, Debug monitor; Overview of Loading, Linking and Relocation.

Basics of Operating Systems: Evolution, Objectives & Functions, Characteristics; Classification of Operating Systems, Windows v/s Linux Operating Systems, Mobile Operating Systems, Network based Operating Systems.

Process Concepts: Definition, Process Relationship, Process states, Process State transitions, Process Control Block, Context switching

SEPTEMBER

Threads: Multicore Programming, Multithreading Models, Threading Issues.

Process Scheduling: Definition, Preemptive v/s Non-preemptive Scheduling, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, RR etc; Multiprocessor scheduling, Scheduling Algorithm Evaluation.

Process Synchronization: Critical Section Problem, Peterson's Solution, Hardware Solution, Semaphores, Classical Problems of Synchronization: Reader's & Writer Problem, Dining Philosopher Problem; Monitors

OCTOBER

Deadlocks - System Model. Deadlock Principles, Deadlock Characterization. Methods for Handling Deadlocks Deadlock Prevention, Deadlock Avoidance: Resource Allocation Graph Algorithm, Banker's Algorithm; Deadlock Detection, Recovery from Deadlock.

Memory Management: Basic Memory Management, Logical and Physical address map, Memory allocation, Fragmentation and Compaction, Paging and its disadvantages, Virtual Memory, Locality of reference, Page Fault, Working Set, Demand paging concept, Page Replacement policies.

Overview of Input/Output & File Management, Disk Scheduling Algorithms

NOVEMBER

Linux Operating System: Design Principles, Kernel Modules, Shells, Editors, Process Management, Scheduling, Memory Management, File Systems, Input and Output; Interprocess Communication, Network Structure.

Linux Utilities: File handling utilities, Security by file permissions, Process utilities, Disk utilities, Networking commands, Filters, Text Processing utilities and backup utilities.

Shell programming: Introduction, shell responsibilities, pipes and Redirection, Running a shell scripts, The shell as a programming language, Shell meta characters, File name substitution, Shell variables, Command substitution, Shell commands, The

LESSON PLAN 2023-2024

Subject: Computer fundamental (BCA 1ST SEM)

Faculty: RITU SHARMA

JULY 2023	Computer Fundamentals: Generations of Computers Definition, Block Diagram along with its components,
AUGUST 2023	characteristics & classification of computers Limitations of Computers Human-Being VS Computer, Applications of computers in various fields. : Memory: Concept of primary & secondary memory RAM, ROM, types of ROM, Cache Memory, flash memory Doubt Clearance, Test & Assignment
SEPTEMBER 2023	Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. Overview of operating system: Definition, functions of operating system, concept of multi programming multitasking, multi threading, multiprocessing, time-sharing, real time, single-user & multi-user operating system, Computer Virus: Doubt Clearance, Test & Assignment
OCTOBER 2023	Definition, types of viruses, Characteristics of viruses, anti-virus software. Computer Languages: Analogy with natural language, machine language, assembly language, high-level languages forth generation languages, compiler, interpreter, assembler, Linker, Loader , characteristics of a good programming language, Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Doubt Clearance, Test & Assignment
NOVEMBER 2023	Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottom up programming Advantages and disadvantages of Structured programming. Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies , Modes of data transmission, Forms of data transmission Transmission channels(media), Introduction to internet and its uses; Doubt Clearance, Test & Assignment
DECEMBER 2023	Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet. Doubt Clearance, Test & Assignment

Ritu Sharma
22/08/23

Subject DBMS(BCA 3RD Sem)
Faculty : RITU SHARMA

JULY 2023	Basic Concepts – Data, Information, Records and files. Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach Doubt Clearance, Test &Assignment
AUGUST 2023	advantages and disadvantages of database system, components of database system Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test &Assignment
SEPTEMBER 2023	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schema, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test &Assignment
OCTOBER 2023	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology- Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test &Assignment
NOVEMBER 2023	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing Doubt Clearance, Test &Assignment
DECEMBER 2023	General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery.

(Ritu Sharma)
 22/08/23

Subject: DCN (BCA 5th Sem)

Faculty: Ms. RITU SHARMA

JULY 2023	Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks
AUGUST 2023	Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies ; Network Software: Network Design issues and Protocols Connection-Oriented and Connection less Services; Network Applications and Application Protocol Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model Doubt Clearance, Test & Assignment
SEPTEMBER 2023	Web Based Model, Network Architecture and the OSI Reference Model, TCP/IP reference model Example Networks: The Internet, X.25, Frame Relay, ATM. Analog and Digital Communications Concepts: Concept of data, signal, channel, bid-rate maximum data-rate of channel, Representing Data as Analog Signals, Representing Data as Digital Signals Doubt Clearance, Test & Assignment
OCTOBER 2023	Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission data encoding techniques, Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dial up Networking; Analog Modem Concepts; DSL Service. Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; Doubt Clearance, Test & Assignment
NOVEMBER 2023	Sliding Window Protocols; Media Access Control: Random Access Protocols, Token Passing Protocols; Token Ring; Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LAN's; Bluetooth; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs Doubt Clearance, Test & Assignment
DECEMBER 2023	Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways.

Ritu Sharma
22/05/23

Subject DBMS(BCA 3RD Sem)
Faculty : JYOTI RANI

JULY 2023	Basic Concepts – Data, Information, Records and files. Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach Doubt Clearance, Test &Assignment
AUGUST 2023	advantages and disadvantages of database system, components of database system Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test &Assignment
SEPTEMBER 2023	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schema, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test &Assignment
OCTOBER 2023	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology-Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test &Assignment
NOVEMBER 2023	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing Doubt Clearance, Test &Assignment
DECEMBER 2023	General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery.

Subject: MIS

Faculty: MS. JYOTI RANI

Jul, Aug 2023	Decision support systems – support systems for planning, control and decision-making
September 2023	introduction to system and Basic System Concepts, Types of Systems, The Systems Approach, Information System: Definition & Characteristics, Types of information, Role of Information in Decision-Making, Sub-Systems of an Information system: EDP MIS management levels, EDP/MIS/DSS
October 2023	-An overview of Management Information System: Definition & Characteristics, Components of MIS, Frame Work for Understanding MIS: Information requirements Levels of Management, Simon's Model of decision-Making Structured Vs Un-structured decisions, Formal vs. Informal systems Doubt Clearance, Test & Assignment
November 2023	Developing Information Systems Analysis & Design of Information Systems: Implementation & Evaluation, Pitfalls in MIS Development Doubt Clearance, Test & Assignment
December 2023	Functional MIS: A Study of Personnel, Financial and production MIS Introduction to E-business systems, E-commerce – technologies, applications, Doubt Clearance, Test & Assignment

Subject: COMPUTER APPLICATIONS FOR MASS MEDIA
Faculty: MS. JYOTI RANI

July, Aug 2023	Origin and growth of computer
September 2023	Various parts and functioning of computer , computer hardware and software,
October 2023	Introduction to MS Word and MS Excel
November 2023	Introduction to MS PowerPoint, introduction to Photo shop, Quark Xpress
December 2023	Introduction to Adobe Premiere Pro Practical Work.

Jyoti Rani

Subject: LOC (BCA 1st Sem)

Faculty: LALITA DEVI

July 2023	Information Representation: Number Systems, Binary Arithmetic,
August 2023	Fixed-point and Floating point representation of numbers BCD Codes, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC, Unicode Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions. Doubt Clearance, Test &Assignment
September 2023	Truth Tables, Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions Venn Diagram, Karnaugh Maps. Doubt Clearance, Test &Assignment
October 2023	Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT , OR-AND-INVERT implementations of digital circuits. Doubt Clearance, Test &Assignment
November 2023	Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor Encoders, Decoders, Multiplexers, Demultiplexers, Comparators Doubt Clearance, Test &Assignment
December 2023	Code Converters, BCD to Seven-Segment Decoder.

Lalita

Subject DBMS(BCA 3RD Sem)
Faculty : LALITA DEVI

JULY 2023	Basic Concepts – Data, Information, Records and files. Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach Doubt Clearance, Test &Assignment
AUGUST 2023	advantages and disadvantages of database system, components of database system Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test &Assignment
SEPTEMBER 2023	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schema, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test &Assignment
OCTOBER 2023	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology- Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test &Assignment
NOVEMBER 2023	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing Doubt Clearance, Test &Assignment
DECEMBER 2023	General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery.

Subject: COMPUTER GRAPHICS(BCA 5TH Sem)
Faculty: LALITA DEVI

August 2023	Graphics Primitives: Introduction to computer graphics, Basics of Graphics systems, Application areas of Computer Graphics, overview of graphics systems, video-display devices, and raster-scan systems, random scan systems, graphics monitors and workstations and input devices Output Primitives: Points and lines, line drawing algorithms, mid-point circle and ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm, boundary fill and flood fill algorithms . Doubt Clearance, Test &Assignment
September 2023	2-D Geometrical Transforms: Translation, scaling, rotation, reflection and shear transformations, matrix representations and homogeneous coordinates, composite transforms, transformations between coordinate systems. 2-D Viewing: The viewing pipeline, viewing coordinate reference frame, window to viewport coordinate transformation, viewing functions, Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland –Hodgeman polygon clipping algorithm. Doubt Clearance, Test &Assignment
October 2023	3-D Object Representation: Polygon surfaces, quadric surfaces, spline representation, Hermite curve, Bezier curve and B-Spline curves, Bezier and B-Spline surfaces. Basic illumination models, polygon-rendering methods Doubt Clearance, Test &Assignment
November 2023	3-D Geometric Transformations: Translation, rotation, scaling, reflection and shear transformations, composite transformations. Doubt Clearance, Test &Assignment
December 2023	3-D Viewing: Viewing pipeline, viewing coordinates, view volume and general projection transforms and clipping. Doubt Clearance, Test &Assignment

Subject: OPERATING SYSTEM(BCA 3rd Sem)

Faculty: KANTA

August 2023	Introduction to Operating System, Its need and operating System services, Early systems Structures - Simple Batch, Multi programmed, time shared. Personal Computer, Parallel, Distributed Systems, Real-Time Systems. Process concept, Operation on processes, Cooperating Processes. Doubt Clearance, Test &Assignment
September 2023	Threads and Inter process Communication Basic concepts, Scheduling criteria Scheduling algorithms : FCFS, SJF, Round Robin & Queue Algorithms. Deadlocks: Deadlock characterization Methods for handling deadlocks, Banker's Algorithm Doubt Clearance, Test &Assignment
October 2023	Memory Management: Logical versus Physical address space, Swapping. Contiguous allocation, Paging, Segmentation Virtual Memory: Demand paging, Performance of demand paging. Page replacement, Page replacement algorithms, Thrashing. Doubt Clearance, Test &Assignment
November 2023	File management: File system Structure, Allocation methods: Contiguous allocation, Linked allocation, Indexed allocation, Free space management: Bit vector, Linked list, Grouping, Counting Device Management: Disk structure, Doubt Clearance, Test &Assignment
December 2023	Disk scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK, C-LOOK.

Kanta

Subject: **COMPUTER GRAPHICS(BCA 5TH Sem)**
Faculty: **KANTA**

August 2023	Graphics Primitives: Introduction to computer graphics, Basics of Graphics systems, Application areas of Computer Graphics, overview of graphics systems, video-display devices, and raster-scan systems, random scan systems, graphics monitors and workstations and input devices Output Primitives: Points and lines, line drawing algorithms, mid-point circle and ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm, boundary fill and flood fill algorithms . Doubt Clearance, Test &Assignment
September 2023	2-D Geometrical Transforms: Translation, scaling, rotation, reflection and shear transformations, matrix representations and homogeneous coordinates, composite transforms, transformations between coordinate systems. 2-D Viewing: The viewing pipeline, viewing coordinate reference frame, window to viewport coordinate transformation, viewing functions, Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland –Hodgeman polygon clipping algorithm. Doubt Clearance, Test &Assignment
October 2023	3-D Object Representation: Polygon surfaces, quadric surfaces, spline representation, Hermite curve, Bezier curve and B-Spline curves, Bezier and B-Spline surfaces. Basic illumination models, polygon-rendering methods Doubt Clearance, Test &Assignment
November 2023	3-D Geometric Transformations: Translation, rotation, scaling, reflection and shear transformations, composite transformations. Doubt Clearance, Test &Assignment
December 2023	3-D Viewing: Viewing pipeline, viewing coordinates, view volume and general projection transforms and clipping. Doubt Clearance, Test &Assignment

Kanta

Lesson Plan 2023-24

Subject: Visual Basic(BCA 5th Sem)

Faculty: Kanta

August 2023	<p>Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages, The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window. Visual Development and Event Driven programming. Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement. Doubt Clearance, Test &Assignment</p>
September 2023	<p>Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array. Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection. Doubt Clearance, Test &Assignment</p>
October 2023	<p>Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland – Hodgeman polygon clipping. Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures, Arguments-passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays. Doubt Clearance, Test &Assignment</p>
November 2023	<p>Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus Working with forms and menus : Adding multiple forms in VB, Activate & deactivate events, Doubt Clearance, Test &Assignment</p>
December 2023	<p>Form-load event, menu designing in VB Simple programs in VB.</p>

Kanta

LESSON PLAN 2023-2024

Subject: Computer fundamental (BCA 1ST SEM)

Faculty: RENU SAINI

JULY 2023	Computer Fundamentals: Generations of Computers Definition, Block Diagram along with its components,
AUGUST 2023	characteristics & classification of computers Limitations of Computers Human-Being VS Computer, Applications of computers in various fields. : Memory: Concept of primary & secondary memory RAM, ROM, types of ROM, Cache Memory, flash memory Doubt Clearance, Test &Assignment
SEPTEMBER 2023	Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. Overview of operating system: Definition, functions of operating system, concept of multi programming multitasking, multi threading, multiprocessing, time-sharing, real time, single-user & multi-user operating system, Computer Virus: Doubt Clearance, Test &Assignment
OCTOBER 2023	Definition, types of viruses, Characteristics of viruses, anti-virus: software. Computer Languages: Analogy with natural language, machine language, assembly language, high-level languages forth generation languages, compiler, interpreter, assembler, Linker, Loader , characteristics of a good programming language, Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Doubt Clearance, Test &Assignment
NOVEMBER 2023	Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottom up programming . Advantages and disadvantages of Structured programming. Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies , Modes of data transmission, Forms of data transmission Transmission channels(media), Introduction to internet and its uses, Doubt Clearance, Test &Assignment
DECEMBER 2023	Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet. Doubt Clearance, Test &Assignment

Renu Saini

Subject DBMS(BCA 3RD Sem)
Faculty : RENU SAINI

JULY 2023	Basic Concepts – Data, Information, Records and files. Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach Doubt Clearance, Test &Assignment
AUGUST 2023	advantages and disadvantages of database system, components of database system Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test &Assignment
SEPTEMBER 2023	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schema, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test &Assignment
OCTOBER 2023	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology-Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test &Assignment
NOVEMBER 2023	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing Doubt Clearance, Test &Assignment
DECEMBER 2023	General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery.

Renu Saini

Subject: DCN (BCA 5th Sem)

Faculty: Ms. RENU SAINI

JULY 2023	Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks
AUGUST 2023	Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies ; Network Software: Network Design issues and Protocols Connection-Oriented and Connection less Services; Network Applications and Application Protocol Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model Doubt Clearance, Test & Assignment
SEPTEMBER 2023	Web Based Model, Network Architecture and the OSI Reference Model, TCP/IP reference model Example Networks: The Internet, X.25, Frame Relay, ATM. Analog and Digital Communications Concepts: Concept of data, signal, channel, bid-rate maximum data-rate of channel, Representing Data as Analog Signals, Representing Data as Digital Signals Doubt Clearance, Test & Assignment
OCTOBER 2023	Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission data encoding techniques, Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dial up Networking; Analog Modem Concepts; DSL Service. Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; Doubt Clearance, Test & Assignment
NOVEMBER 2023	Sliding Window Protocols; Media Access Control: Random Access Protocols, Token Passing Protocols; Token Ring; Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LAN's; Bluetooth; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs Doubt Clearance, Test & Assignment
DECEMBER 2023	Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways.

Renu Saini

LESSON PLAN 2023-24

Subject: LOC (BCA 1st Sem)

Faculty: Pooja Rani

July 2023	Information Representation: Number Systems, Binary Arithmetic,
August 2023	Fixed-point and Floating point representation of numbers BCD Codes, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC, Unicode Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions. Doubt Clearance, Test & Assignment
September 2023	Truth Tables, Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions Venn Diagram, Karnaugh Maps. Doubt Clearance, Test & Assignment
October 2023	Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT, OR-AND-INVERT implementations of digital circuits. Doubt Clearance, Test & Assignment
November 2023	Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor Encoders, Decoders, Multiplexers, Demultiplexers, Comparators Doubt Clearance, Test & Assignment
December 2023	Code Converters, BCD to Seven-Segment Decoder.



Subject: ADVANCE JAVA (MCA 3rd Sem)

Faculty: Pooja Rani

July 2023	Java Swing: Introduction to Swing, Swing features, Components Containers, Create Swing Applet, Exploring Swing: JLabel, JTextField, Swing buttons, JTabbedPane, JList, JTree, JTable.
August 2023	Spring: Introduction, Architecture, Spring modules, Dependency Injection, IOC containers, Constructor Injection Dependent Object: Constructor Injection with maps, collections, Bean Definition, Constructor Injection inheriting Bean, Developing simple Applications. Introduction to Operating System JDBC: Types of JDBC Drivers, The Connectivity Model, Navigating the ResultSet object's contents, Manipulating records of a ResultSet Object through user Interface, Database Connectivity, Data Manipulation using prepared Statements; Doubt Clearance, Test &Assignment
September 2023	JAVA RMI: Remote Method Invocation: RMI Architecture, A simple server client applications using RMI, Spring JDBC framework. Process concept, Operation on processes SERVLETS: Background, Life cycle of servlet, A Simple servlet, Servlet API, Get and Post request, Accessing a Servlet using an HTML page; Doubt Clearance, Test &Assignment
October 2023	JSP:- Basics and Overview , JSP architecture, JSP tags and JSP expressions, Lifecycle of a JSP Model, View Controller, JSP Objects, Working with Databases. STRUTS AND HIBERNATE MVC Architecture: POJO class, Doubt Clearance, Test &Assignment
November 2023	Struts: Overview, Architecture, Struts Action Class, Using Struts HTML Tags, Developing Application with Struts Struts -JDBC connection; Doubt Clearance, Test &Assignment
December 2023	Introduction to Hibernate, Hibernate Architecture, H ibernate Application.



subject: Visual Basic(BCA 5th Sem)

Faculty: Pooja Rani

July 2023	Introduction – visual basic
August 2023	<p>Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages, The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window. Visual Development and Event Driven programming. Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement. Doubt Clearance, Test &Assignment</p>
September 2023	<p>Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array. Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection. Doubt Clearance, Test &Assignment</p>
October 2023	<p>Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland – Hodgeman polygon clipping. Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures, Arguments-passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays. Doubt Clearance, Test &Assignment</p>
November 2023	<p>Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus Working with forms and menus : Adding multiple forms in VB, Activate & deactivate events, Doubt Clearance, Test &Assignment</p>
December 2023	Form-load event, menu designing in VB Simple programs in VB.



LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 Eng. Hons)

Faculty: Ms. Hema Jandsalar

JULY 2023	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,.
AUGUST 2023	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Sept. 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
Oct. 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Nov. 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
Dec. 2023	Revision and Test

Hema

LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 Eco. Hons, BSc)

Faculty: Ms. SEEMA

JULY 2023	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,.
AUGUST 2023	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Sept. 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
Oct. 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Nov. 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
Dec. 2023	Revision and Test



LESSON PLAN-2022-23 (EVEN SEM)

BCA 6th Sem
Subject: .NET

Faculty: KANTA

Jan 2024	<p>The Framework of .Net Building blocks of .Net Platform (the CLR, CTS and CLS). Features of .Net, Deploying the .Net Runtime</p> <p>Architecture of .Net platform, Introduction to namespaces & type distinction.</p> <p>Types & Object in .Net, the evolution of Web development .Class Libraries in .Net</p> <p>Doubt Clearance, Revision</p>
Feb 2024	<p>Introduction to Assemblies & Manifest in .Net</p> <p>Metadata & attributes, Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes</p> <p>Introduction to C# Characteristics of C#, Data types., Value types, reference types, default value, constants</p> <p>Variables, scope of variables, boxing and unboxing.</p> <p>Doubt Clearance, Revision</p>
March 2024	<p>Operators and expressions Arithmetic, relational, logical, bitwise, special operators.</p> <p>Evolution of expressions, operator precedence & associativity . Control constructs in C# Decision making, loops, Classes & methods.</p> <p>Class, methods, constructors, destructors, overloading of operators & functions.</p> <p>Doubt Clearance, Revision</p>
April 2024	<p>Inheritance & polymorphism, visibility control, overriding & methods, interfaces, abstract class & methods, sealed classes</p> <p>Advanced features of C# Exception handling & error handling</p> <p>Automatic memory management, Input and output (Directories, Files, and streams).</p> <p>Doubt Clearance, Revision</p>

Kanta

BCA1ST YEAR
SUB:-C LANGUAGE

Faculty :KANTA

Jan 2024	<p>Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords</p> <p>Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() Functions</p> <p>Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators,</p> <p>Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity.</p> <p>Doubt Clearance, Revision</p>
Feb 2024	<p>Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder switch statement, goto statement</p> <p>Decision making & looping: For, while, and do-while loop, jumps in loops, break, continue statement, Nested loops.</p> <p>Functions: Standard Mathematical functions, Input/output: Unformatted & formatted I/O function in C</p> <p>Doubt Clearance, Revision</p>
March 2024	<p>Input functions viz. getch(), getche(), getchar(), gets(), output functions viz., putchar(), puts(), string manipulation functions. Arrays, strings and pointers, User defined functions: Introduction/Definition, prototype, Local and global variables, passing parameters, recursion. initialization, processing an array, passing arrays to functions, Array of Strings. String constant and variables</p> <p>Doubt Clearance, Revision</p>
April 2024	<p>Declaration and initialization of string, Input/output of string data, Introduction to pointers.</p> <p>Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.</p> <p>Algorithm development</p> <p>Flowcharting and Development of efficient program in C.</p> <p>Doubt Clearance, Revision</p>

Kanta

LESSON PLAN-2023-24 (EVEN SEM)

Object Oriented Programming Using C++

BCA 4th Sem

Faculty: Pooja Rani

Subject: OOPS

Jan 2024	Object Oriented Programming Concepts : Procedural Language and Object Oriented approach, Characteristics of OOP, user defined types, polymorphism and encapsulation. Getting started with C++: syntax, data types, variables, string, function, namespace and exception, operators. flow control, recursion, array and pointer, structure .
Feb 2024	Abstracting Mechanism: classes, private and public. Constructor and Destructor , member function, static members, references; Memory Management: new, delete, object copying. Copy constructor, assignment operator, this input/output
March 2024	Inheritance and Polymorphism: Derived Class and Base Class. Different types of Inheritance. Overriding member function, Abstract Class, Public and Private Inheritance, Ambiguity in Multiple inheritance .Virtual function, Friend function, Static function.
April 2024	Exception Handling: Exception and derived class, function exception declaration, unexpected exception. exception when handling exception, resource capture and release. Template and Standard Template Library: Template classes, declaration. template functions, namespace, string, iterators, hashes, iostreams and other types.



SOFTWARE ENGINEERING

BCA 2ND YEAR

Subject: SOFTWARE ENGINEERING

Faculty: Ms. Pooja Rani

Jan 2024	<p>UNIT – I</p> <p>Introduction: Software Crisis, Software Processes & Characteristics, Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models.</p> <p>Software Requirements Analysis & Specifications: Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD, Data dictionaries</p>
Feb 2024	<p>ER Diagrams, Requirements documentation, Nature of SRS, Characteristics & organization of SRS . UNIT – II The Management spectrum, The People The Problem, The Process, The Project. Software Project Planning: Size Estimation like lines of Code & Function Count, Cost Estimation Models, COCOMO, Risk Management.</p> <p>Test & Assignment</p>
March 2024	<p>Cohesion & Coupling, Classification of Cohesiveness & Coupling, Function Oriented Design, Object Oriented Design, Software Metrics: Software measurements: What & Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics Software Implementation: Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style</p> <p>Doubt Clearance, Test & Assignment</p>
April 2024	<p>Software Testing: Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, Test Activities, Unit Testing, Integration Testing and System Testing, Debugging Activities.</p> <p>Software Maintenance: Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation. Program design, Debugging, Types of errors in programming, Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottomup programming</p> <p>Advantages and disadvantages of Structured programming. Doubt Clearance, Test & Assignment</p>



BCA 2ND YEAR
SUB:-WEB DESIGNING

WEB DESIGNING

Faculty : Pooja Rani

Jan 2024	<p>Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features</p> <p>Web Browsers; Web Servers; Hypertext Transfer Protocol, Overview of TCP/IP and its services; URLs;</p> <p>Searching and Web-Casting Techniques, Search Engines and Search Tools</p> <p>Doubt Clearance, , Test &Assignment</p>
Feb 2024	<p>Web Publishing: Hosting your Site; Internet Service Provider;</p> <p>Web terminologies, Phases of Planning and designing your Web Site; Steps for developing your Site; Choosing the contents;</p> <p>Home Page; Domain Names, Front page views, Adding pictures, Links, Backgrounds, Relating Front Page to DHTML.</p> <p>Creating a Website and the Markup Languages (HTML, DHTML)</p> <p>Doubt Clearance, , Test &Assignment.</p>
March 2024	<p>Web Development: Introduction to HTML; Hypertext</p> <p>HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background</p> <p>Formatting text; Page layouts</p>
April 2024	<p>Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts</p> <p>Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons</p> <p>Check Boxes; Text Boxes; DHTML: Dynamic HTML, Features of DHTML,CSSP(cascading style sheet positioning)</p> <p>JSSS(JavaScript assisted style sheet), Layers of Netscape, The ID attributes, DHTML events</p>



E-Commerce

Faculty: RENU SAINI

Jan 2024	<p>Week 1: Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce,</p> <p>Week 2: Traditional Commerce vs. Electronic Commerce, Impact of E-Commerce, Electronic Markets, Internet Commerce</p> <p>Week 3: e-commerce in perspective, Application of E Commerce in Direct Marketing and Selling,</p> <p>Week 4: Obstacles in adopting E-Commerce Applications; Future of Ecommerce</p>
Feb 2024	<p>Week 1: Value Chains in electronic Commerce, Supply chain, Porter's value chain Model</p> <p>Week 2: Inter Organizational value chains, Strategic Business unit chains, Industry value chains. Security Threats to E-commerce: Security Overview, Computer Security Classification</p> <p>Week 3: Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats</p> <p>Week 4: Clients Threats, Communication Channel Threats, server Threats</p>
March 2024	<p>Week 1: Implementing security for E-Commerce: Protecting E-Commerce Assets, Protecting Intellectual Property,</p> <p>Week 2: Protecting Client Computers, Protecting E-commerce Channels, Insuring Transaction Integrity</p> <p>Week 3: Protecting the Commerce Server. Electronic Payment System: Electronic Cash</p> <p>Week 4: Electronic Wallets, Smart Card, Credit and Charge Card</p>
April 2024	<p>Week 1 : Business to Business E-Commerce: Inter-organizational Transitions, Credit Transaction Trade Cycle</p> <p>Week 2: a variety of transactions. Electronic Data Interchange (EDI): Introduction to EDI</p> <p>Week 3: Benefits of EDI, EDI Technology, EDI standards, EDI Communication</p> <p>Week 4: EDI Implementation, EDI agreement, EDI security</p>

Structured Systems Analysis and Design

Faculty: RENU SAINI

Jan 2024	<p>Week 1: Introduction to system, Definition and characteristics of a system, Elements of system,</p> <p>Week 2: Types of system, System development life cycle, Role of system analyst, Analyst/user interface, System planning and initial investigation: Introduction</p> <p>Week 3: Bases for planning in system analysis, Sources of project requests, Initial investigation, Fact finding, Information gathering</p> <p>Week 4: information gathering tools, Fact analysis, Determination of feasibility.</p>
Feb 2024	<p>Week 1: Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts</p> <p>Week 2: decision tree, decision table, structured English, Pros and cons of each tool, Feasibility study: Introduction, Objective, Types, Steps in feasibility analysis</p> <p>Week 3: Feasibility report, Oral presentation, Cost and benefit analysis: Identification of costs and benefits, classification of costs and benefits</p> <p>Week 4: Methods of determining costs and benefits, Interpret results of analysis and take final action</p>
March 2024	<p>Week 1: System Design: System design objective, Logical and physical design, Design Methodologies, structured design, Form-Driven methodology(IPO charts),</p> <p>Week 2: structured walkthrough, Input/Output and form design: Input design, Objectives of input design, Output design,</p> <p>Week 3: Objectives of output design, Form design, Classification of forms, requirements of form design,</p> <p>Week 4: Types of forms, Layout considerations, Form control.</p>
April 2024	<p>Week 1 System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of system tests</p> <p>Week 2:Quality assurance goals in system life cycle, System implementation, Process of implementation</p> <p>Week 3:System evaluation, System maintenance and its types,</p> <p>Week 4:System documentation, Forms of documentation.</p>

Renu Saini

Subject: Data Structure

Faculty: RENU SAINI

Jan 2024	<p>Week 1: Sequential Logic: Characteristics, Flip-Flops. Week 2: Clocked RS, D type, JK, T type and MasterSlave flip-flops. Week 3: State table, state diagram and state equations. Week 4: Flip-flop excitation tables, revision test.</p>
Feb 2024	<p>Week 1: Sequential Circuits: Designing registers Week 2: Serial Input Serial Output (SISO), Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Week 3: Designing counters – Asynchronous and Synchronous Binary Counters Week 4: Modulo-N Counters and Up-Down Counters, revision test.</p>
March 2024	<p>Week 1: Memory & I/O Devices: Week 2: Memory Parameters, Semiconductor RAM, ROM, Magnetic and Optical Storage devices, Week 3: Flash memory, I/O Devices and their controllers. Week 4: revision test</p>
April 2024	<p>Week 1: Instruction Design & I/O Organization Week 2: Machine instruction, Instruction set selection, Instruction cycle. Week 3: Instruction Format and Addressing Modes. I/O Interface, Interrupt structure. Week 4: Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP.</p>

Renu Saini

LESSON PLAN-2023-24 (EVEN SEM)

BCA:6th Sem

Faculty: Jyoti Rani

Subject: E-COMMERCE

Jan 2024	<p>Week 1: Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce,</p> <p>Week 2: Traditional Commerce vs. Electronic Commerce, Impact of E-Commerce, Electronic Markets, Internet Commerce</p> <p>Week 3: e-commerce in perspective, Application of E Commerce in Direct Marketing and Selling,</p> <p>Week 4: Obstacles in adopting E-Commerce Applications; Future of E-commerce</p>
Feb 2024	<p>Week 1: Value Chains in electronic Commerce, Supply chain, Porter's value chain Model</p> <p>Week 2: Inter Organizational value chains, Strategic Business unit chains, Industry value chains. Security Threats to E-commerce: Security Overview, Computer Security Classification</p> <p>Week 3: Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats</p> <p>Week 4: Clients Threats, Communication Channel Threats, server Threats</p>
March 2024	<p>Week 1: Implementing security for E-Commerce: Protecting E-Commerce Assets, Protecting Intellectual Property,</p> <p>Week 2: Protecting Client Computers, Protecting E-commerce Channels, Insuring Transaction Integrity</p> <p>Week 3: Protecting the Commerce Server. Electronic Payment System: Electronic Cash</p> <p>Week 4: Electronic Wallets, Smart Card, Credit and Charge Card</p>
April 2024	<p>Week 1 : Business to Business E-Commerce: Inter-organizational Transitions, Credit Transaction Trade Cycle</p> <p>Week 2: a variety of transactions. Electronic Data Interchange (EDI): Introduction to EDI</p> <p>Week 3: Benefits of EDI, EDI Technology, EDI standards, EDI Communication</p> <p>Week 4: EDI Implementation, EDI agreement, EDI security</p>



BCA:6th Sem
Subject: JAVA

Faculty: Jyoti Rani

Jan 2024	<p>Introduction: The History and Evolution of Java of JAVA, features of JAVA:- Platform independent, Robust etc, JAVA Environment. Hardware and Software Requirements, Byte Code, Installing JDK, Difference between C++ and JAVA, Command-Line Arguments, Environment Variables, System Utilities. Command-Line I/O Objects. PATH and CLASSPATH.</p> <p>JAVA as Programming Language: Java as Object Oriented Language, JAVA Program Structure, JAVA literals, Data Type, Variable & Arrays in JAVA.</p>
Feb 2024	<p>JAVA Programming Constructs: Operators and Expressions, Precedence Rules and Associativity, Type conversion and casting, Control Structures in JAVA.</p> <p>JAVA Object Oriented Basics: Classes and Objects in JAVA, Variables & Methods in Classes: declaration and invocation, constructors and garbage collection, static and this keywords.</p> <p>Test & Assignment</p>
March 2024	<p>Inheritance in JAVA: Types, Access Specifiers, Class vs Interface, Extending vs Implementation of Interface, overloading vs overriding, Abstract Class, super & final keywords.</p> <p>JAVA as Internet Programming Language: Applets: difference from normal application, life cycle, Applet tag, Passing parameters and display output. AWT: Basics, Component and Container Layouts, AWT vs Swing</p> <p>Doubt Clearance, Test & Assignment</p>

April 2024

Exception Handling: The concept of Exceptions. Types of Exceptions. Dealing with

Exceptions, Exception Objects, Defining Your Own Exceptions.

Multithreading Programming: The Java Thread Model. Understanding Threads, The Main

Thread, Creating a Thread, Creating Multiple Threads, Thread Priorities. Synchronization.

Input/Output in Java: I/O Basic, Byte and Character Structures. I/O Classes, Reading

Console Input Writing Console Output, Reading and Writing on Files. Random Access Files,

Storing and Retrieving Objects from File, Stream Benefits.

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WEB DESIGNING

BCA 2ND YEAR

SUB:-WEB DESIGNING

Faculty : LALITA DEVI

Jan 2024	<p>Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features</p> <p>Web Browsers; Web Servers; Hypertext Transfer Protocol, Overview of TCP/IP and its services; URLs;</p> <p>Searching and Web-Casting Techniques, Search Engines and Search Tools</p> <p>Doubt Clearance, , Test &Assignment</p>
Feb 2024	<p>Web Publishing: Hosting your Site; Internet Service Provider;</p> <p>Web terminologies, Phases of Planning and designing your Web Site; Steps for developing your Site; Choosing the contents;</p> <p>Home Page; Domain Names, Front page views, Adding pictures, Links, Backgrounds, Relating Front Page to DHTML.</p> <p>Creating a Website and the Markup Languages (HTML, DHTML)</p> <p>Doubt Clearance, , Test &Assignment.</p>
March 2024	<p>Web Development: Introduction to HTML; Hypertext</p> <p>HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background</p> <p>Formatting text; Page layouts</p>
April 2024	<p>Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts</p> <p>Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons</p> <p>Check Boxes; Text Boxes; DHTML: Dynamic HTML, Features of DHTML, CSSP(cascading style sheet positioning)</p> <p>JSSS(JavaScript assisted style sheet), Layers of Netscape, The ID attributes, DHTML events</p>

Lalita

BCA 1ST YEAR

SUB.-LOC-II

Faculty : LALITA DEVI

Jan 2024	Sequential Logic: Characteristics, Flip-Flops, State table, state diagram and state equations. Flip-flop excitation tables D type, JK, T type and Master Slave flip-flops. Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes. Clocked RS, DMA transfer, I/O Channels, IOP
Feb 2024	Sequential Circuits: Designing registers – Serial Input Serial Output(SISO), Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters
March 2024	Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Instruction Design & I/O Organization: Machine instruction, I/O Interface, Interrupt structure,
April 2024	Memory & I/O Devices: Memory Parameters, Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers. Semiconductor RAM, ROM. Program-controlled, Interrupt-controlled.

Lalita

MCA 1ST YEAR

SUB.-THEORY OF COMPUTATION

Faculty :LALITA DEVI

<p>Jan 2024</p>	<p>Theory of Computation: Formal Language, Language Vs Grammar, Non-Computational</p> <p>Problems, Diagonal Argument, Russels's Paradox, Chomsky Hierarchy of Languages</p> <p>System Programming & Compiler: Introduction to System programs; Assembler Vs</p> <p>Compiler Vs Interpreter; Structure of a Compiler: Lexical Analysis, Syntax Analysis,</p> <p>Semantic Analysis, Intermediate Code Generation, Code Optimization, Code Generation,</p> <p>Symbol Table Management, Grouping of phases into passes, compiler construction tools.</p> <p>Applications of Compiler Technology.</p>
<p>Feb 2024</p>	<p>Lexical Analysis: The role of lexical analyser, Lexical Analysis vs Parsing, Specification of</p> <p>Tokens, Recognition of Tokens, Introduction to <i>lex</i>.</p> <p>Regular Language Models: Regular Languages, Regular Grammars, Regular Expressions,</p> <p>Properties of Regular Language, Pumping Lemma, Non-Regular Languages, Deterministic</p> <p>Finite Automaton (DFA), Non-Deterministic Finite Automaton (NDFAs), Equivalence of DFA</p> <p>and NDFAs.</p>
<p>March 2024</p>	<p>Syntax Analysis: Basic Concepts: Syntax definition, Parse Tree and Derivations, Ambiguity,</p> <p>Associativity & Precedence of Operations; Context Free Grammars Vs Regular Expressions;</p> <p>Lexical Analysis Vs Syntactical Analysis, Eliminating Ambiguity, Eliminating Left Recursion.</p> <p>Parsing: Top Down Parsing: Recursive Descent, Predictive Parsing,</p>

Lalita

	<p>LL(1) Grammars,</p> <p>Bottom up Parsing: Reductions, Handle Pruning, SR parsing, LR Parser, LALR Parser;</p> <p>Introduction to <i>Yacc</i>.</p>
<p>April 2024</p>	<p>Code Generation and Code Optimization: Control-flow, Data-flow Analysis, Local Optimization, Global Optimization, Loop Optimization, Peep-Hole Optimization,</p> <p>Instruction Scheduling.</p> <p>Context Free Language: Pushdown Automaton (PDA), Non-Deterministic Pushdown Automaton (NPDA), Context Free Grammar, Chomsky Normal Form, Greibach Normal Form, Ambiguity, Equivalence of PDA's and Context Free Grammars; Properties of Context Free Language.</p> <p>An introduction to the Turing Machine. Issue of unsolvable problems and computational complexity.</p>

Laubitz

Object Oriented Programming Using C++

BCA 4th Sem

Faculty: RAJESH KUMAR

Subject: OOPS

Jan 2024	Object Oriented Programming Concepts : Procedural Language and Object Oriented approach, Characteristics of OOP, user defined types, polymorphism and encapsulation. Getting started with C++: syntax, data types, variables, string, function, namespace and exception, operators. flow control, recursion, array and pointer, structure .
Feb 2024	Abstracting Mechanism: classes, private and public. Constructor and Destructor , member function, static members, references; Memory Management: new, delete, object copying. Copy constructor, assignment operator, this input/output
March 2024	Inheritance and Polymorphism: Derived Class and Base Class. Different types of Inheritance. Overriding member function, Abstract Class, Public and Private Inheritance, Ambiguity in Multiple inheritance .Virtual function, Friend function, Static function.
April 2024	Exception Handling: Exception and derived class, function exception declaration, unexpected exception. exception when handling exception, resource capture and release. Template and Standard Template Library: Template classes, declaration. template functions, namespace, string, iterators, hashes, iostreams and other types.

Rajesh

BCA1ST YEAR
SUB:-C LANGUAGE
KUMAR

Faculty :RAJESH

Jan 2024	<p>Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() Functions</p> <p>Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators, Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity.</p>
Feb 2024	<p>Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder switch statement, goto statement Decision making & looping: For, while, and do-while loop, jumps in loops, break, continue statement, Nested loops. Functions: Standard Mathematical functions, Input/output: Unformatted & formatted I/O function in C</p>
March 2024	<p>Input functions viz. getch(), getche(), getchar(), gets(), output functions viz., putchar(), puts(), string manipulation functions. Arrays, strings and pointers, User defined functions: Introduction/Definition, prototype, Local and global variables, passing parameters, recursion. initialization, processing an array, passing arrays to functions, Array of Strings. String constant and variables</p>
April 2024	<p>Declaration and initialization of string, Input/output of string data, Introduction to pointers. Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime. Algorithm development Flowcharting and Development of efficient program in C.</p>

fayaz

BCA-1ST YEAR

SUB:-MFCS

Faculty :RAJESH KUMAR

Jan 2024	Measure of Central Tendency, Preparing frequency , distribution table Mean, Mode, Median, Measure of Dispersion: Range, Algorithms, merits and demerits, Exponentiation, How to compute fast exponentiation Linear Search, Binary Search, "Big Oh" notation, Worst case, Advantage of logarithmic algorithms over linear algorithms, complexity Graphs, Types of graphs, degree of vertex, sub graph, isomorphic and homeomorphism graphs
Feb 2024	Adjacent and incidence matrices, Path Circuit , Trees, Minimum distance trees Recursively defined function. Merge sort, Insertion sort, Bubble sort, and Decimal to Binary. Principle of Mathematical induction, GCD
March 2024	Euclidean algorithm LHRR, LHRRWCCs, DCRR. Recursive procedures, Fibonacci numbers, congruence's and equivalence relations Public key encryption schemes. Minimum weight and Minimum distance spanning trees
April 2024	Eulerian, Hamiltonian path circuit. Variance and Standard Deviations, Correlation and Regression.

Rajesh

LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 Eng.Hons)

Faculty: Ms Hema Jandsalar

Jan2024	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary
Feb.2024	page formatting, bookmark, previewing and printing document, Filemanagement, test advance features of MS word, Mail merge, Macro, Tables, printing styles
March2024	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
April 2024	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects

Hema

LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 Eng. Hons, BSc)

Faculty: Ms. Hema Jandsalar

JULY 2023	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,.
AUGUST 2023	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Sept. 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
Oct. 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Nov. 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
Dec. 2023	Revision and Test

Hema

LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 ECo.Hons)

Faculty: Ms. Seema

Jan2024	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary
Feb.2024	page formatting, bookmark, previewing and printing document, Filemanagement, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
March2024	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
April 2024	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects

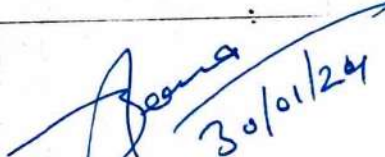
Seema
3/01/24

LESSON PLAN 2023-2024

Subject: Compulsory computer education (BA 1 pass, BA1 Eco. Hons, BSc)

Faculty: Ms. SEEMA

JULY 2023	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,.
AUGUST 2023	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Sept. 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
Oct. 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Nov. 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
Dec. 2023	Revision and Test


30/01/24

LESSON PLAN (EVEN SEM)

Session 2023-24

MCA 4th Sem

Subject : Computer Security

Faculty Name: Venu

<p>JAN 2024</p>	<p>UNIT-I</p> <p>Security Problem in Computing: meaning of Computer Security, Computer Criminals, Methods of Defense, Elementary Cryptography: Substitution Ciphers, Transpositions, Making "Good" Encryption Algorithms, The Data Encryption Standard, The AES Encryption Algorithm, Public Key Encryptions, Uses of encryption.</p> <p>Assignment 1</p>
<p>FEB 2024</p>	<p>Unit- II</p> <p>Program Security: Secure Programs, Non-malicious Program Errors, viruses and other malicious code, Targeted Malicious code, controls Against Program Threats, Protection in General-Purpose operating system protected objects and methods of protection, File protection Mechanisms, User Authentication Designing Trusted O.S : Security policies, models of security, trusted O.S. design, Assurance in trusted OS. Implementation examples.</p> <p>UNIT- III</p> <p>Database Security: Security requirements, Reliability and integrity, Sensitive data, Inference, multilevel database, proposals for multilevel security. Security in Network: Threats in Network, Network Security Controls, Firewalls, Intrusion Detection Systems, Secure E-mail.</p> <p>Presentation/Test</p>
<p>MARCH 2024</p>	<p>Administering Security: Security Planning, Risk Analysis, Organizational Security policies, Physical Security, Legal Privacy and Ethical Issues in Computer Security: Protecting Programs and data, Information and the law, Rights of Employees and Employers, Software failures, Computer Crime, Privacy, Ethical issues in Computer Security, Case studies of Ethics</p> <p>Test</p>
<p>APRIL 2024</p>	<p>Unit -IV</p> <p>Blockchain Technology: Cryptography - Hash function, Digital Signature - ECDSA, Memory Hard Algorithm, Zero Knowledge Proof; Blockchain Overview: Introduction, Advantage over conventional distributed database, Blockchain Network, Mining Mechanism, Distributed Consensus, Merkle Patricia Tree, Gas Limit, Transactions and Fee, Anonymity, Reward, Chain Policy, Life of Blockchain application, Soft & Hard Fork, Private and Public blockchain.</p>



Cryptocurrency: History, Distributed Ledger, Bitcoin protocols - Mining strategy and rewards, Ethereum - Construction, DAO, Smart Contract, GHOST, Vulnerability, Attacks, Sidechain, Namecoin.

Blockchain Applications: Internet of Things, Medical Record Management System, Domain Name Service and future of Blockchain.

Revision

LESSON PLAN (EVEN SEM)

Session 2023-24

MCA 4th Sem

Subject : Advance Database Management System

Faculty Name: Dr Neelam Dahiya & Ms Venu

JAN 2024	UNIT-I Introduction to Advance Database Systems: Overview of advance database systems, their importance and Applications; EER Model -The ER model, revisited, EER model: Super classes, Subclasses, Inheritance, Specialization, and Generalization, Constraints and characteristics of specialization and Generalization, Category. Object Model: Overview of Object-Oriented concepts, Object identity, Object structure, Type constructors, Encapsulation of operations, Methods, and Persistence, Type hierarchies and Inheritance, Complex objects, Schema design for OODBMS, OQL, Persistent Programming language, OODBMS architectures and storage issues, Transaction and concurrency control. Object Relational Database and Information Retrieval: Database design for an ORDBMS – Nested relations and collections; Storage and access methods, Query processing and Optimization, Advance Querying: User define data types, manipulating objects table, object views; Information Retrieval & ways to retrieve information. Assignment 1
FEB 2024	Unit- II Parallel Database: Architectures for parallel databases. Inter and Intra Query parallelism. Inter and Intra Query operations. Parallelizing individual operations. Sorting. Joins. Pipelining. Distributed Database: Architectures for Distributed Database. Data Fragmentation. Replication, and Allocation Techniques for Distributed Database Design. Query processing in Distributed Databases: Concurrency Control and Recovery in Distributed Databases. Overview of Client Server Architectures: Centralized and Client-Server architectures, Server architectures.

Neelam Dahiya *Kes*

	<p>Enhanced Data Models for Advanced Applications: Active database- syntax and semantics (DB2, Oracle), applications, design principles for active rules, Temporal database concepts, Spatial databases, Deductive databases.</p> <p>UNIT- III</p> <p>Database Security: Security requirements, Reliability and integrity, Sensitive data, Inference, multilevel database, proposals for multilevel security.</p> <p>Security in Network: Threats in Network, Network Security Controls, Firewalls, Intrusion Detection Systems, Secure E-mail.</p> <p>Presentation/Test</p>
MARCH 2024	<p>Emerging Database Technologies: Mobile databases, Multimedia Databases, Geographic Information systems (GIS); XML and Internet Databases: Structured, Semi-structured and Unstructured Data, Introduction to web databases and XML, Structure of XML data.</p> <p>Test</p>
APRIL 2024	<p>Unit -IV</p> <p>Data Warehouse and OLAP Technology: Need for data warehouse, Definition, Goals of data Warehouse, Challenges faced during Warehouse Construction, Advantages, Types of Warehouse: Data Mart, Virtual Warehouse and Enterprise Warehouse; Components of Warehouse: Fact data, Dimension data, Fact-table and Dimension table, Designing fact tables; Pre-requisite Phases: Extract, Transform and load process; Warehouse Schema: star, snowflake and galaxy schemas; OLTP vs OLAP, Strengths of OLAP, Applications of OLAP.</p> <p>Multidimensional data models: Data Cubes & Data Cuboids, Lattice; OLAP operations: Advantages, Types: Roll up, Drill down, Pivot, Slice & Dice operations, Applications; OLAP Server: Need, Types: ROLAP, MOLAP and HOLAP; Features; Data Warehouse Implementation, Introduction to Efficient computation of data cubes.</p> <p>Revision</p>

Nalwa *KJ*

LESSON PLAN (EVEN SEM)

Session 2023-24

MCA 4th Sem

Subject: Foundation Elective -E-Commerce

Faculty Name: Dr Neelam Dahiya

JAN 2024	UNIT-I Unit-I E-Commerce: Meaning, Concept, Definitions, Origin and Development, Categories of ECommerce: B2B, B2C, B2G, G2G, G2C; The Constitution of the E-Commerce: Portal of the Network, Customer Relationship Management, Supply Chain Management, Logistic Management, Decision Support; Supporting Environment for E-Commerce: Technical Environment, Legal Environment, Credit Environment and Financial Environment. Assignment 1
FEB 2024	Unit-II M-Commerce: The Origin of M-Commerce, M-Commerce Components, The Development of M Commerce, The Application of M-Commerce Presentation/Test
MARCH 2024	Unit-III Payment Technologies for E-Commerce: Online Bank, E-Payment Tools: E-Payment System, Intelligent Card, E-check, E-wallet, E-Cash. Test
APRIL 2024	Unit-IV Electronic Commerce: Influence on Marketing: Product, Physical Distribution, Price, Promotion, Marketing Communication, Common e-Marketing Tools Revision

Neelam

Session 2023-24

MCA 2nd Sem

Subject : Database Management System

Faculty name: Ms. Priyanka Balhara

January 2024	<p>Database System Concepts and Architecture: Traditional File Processing System vs DBMS, Characteristics & Advantages of DBMS, Three-Schema Architecture and Data Independence; Data Models, Schemas, and Instances; Database Languages and Interfaces; Classification of DBMS. Overview of Entity-Relationship Diagram, Relational Model - Constraints, Relational Database Schemas, Relational Algebra and Relational Calculus; Codd Rules.</p> <p>Assignment 1</p>
February 2024	<p>Normalization for Relational Databases: Functional Dependencies and Normalization; SQL: SQL as 4GL, SQL Components: DDL, DML, DQL, DCL, TCL; Data Definition and Data Types; Constraints, Queries, Insert, Delete, and Update Statements; Views, Stored Procedures and Functions; Database Triggers, SQL Injection.</p> <p>Query Processing and Optimization: Translating SQL queries into Relational Algebra, Basic Algorithm for Executing Query Operations, Using Heuristic in Query Optimization, Using Selectivity and Cost Estimation in Query Optimization, Semantic Query Optimization.</p>
March 2024	<p>Transaction Processing: Introduction, Desirable properties of Transactions, Schedules & Recoverability, Serialization of Schedulers, Transaction Support in SQL. Basics of Database Security and Authorization.</p> <p>Concurrency Control Techniques: Locking techniques for Concurrency Control, Concurrency Control based on Timestamp ordering, Multiversion Concurrency Control Techniques, Validation Currency Control Techniques, Granularity of data items and multiple granularity locking, Using locks for Concurrency Control in Indexes.</p> <p>Presentation</p>
April 2024	<p>Database Recovery Techniques: Basic Concepts, Recovery Technique based on Deferred Update, Recovery Technique based on Immediate Update, Shadow Paging, The ARIES recovery algorithm, Database backup and recovery from catastrophic failure.</p> <p>Test Revision</p>

Priyanka

<p>January 2024</p>	<p>IoT: Definition, Motivation, Impact & Challenges; IoT vs WoT Functional Requirements, Architecture: Web 3.0, View of IoT Ubiquitous IoT, Applications, Four Pillars of IoT, DNA of IoT; Toolkit Approach for end user participation in IoT, Middleware for IoT: Overview, Communication Middleware for IoT, IoT Information Security. Assignment 1 Protocol Standardization for IoT, Efforts, M2M and WSN Protocols, SCADA and RHD, Issue with IoT Standardization and UDS.</p>
<p>February 2024</p>	<p>Communicating Smart Objects: Communication criteria, IoT access Technologies- IEEE Test 1(Unit-2) Presentation(Unit-3) IOT Network Layer: IP as IoT network layer, 6LoWPAN, 6Lo,6T1SCH,RPL IOT Application Layer: Transport Method, CoAP, MQTT Data and Analytics for IoT, IoT Middleware, Data Analytics for IoT, BACNet, Protocol, Modbus, KNX, Network Layer, APS layer Security.</p>
<p>March 2024</p>	<p>Basics of Sensor and actuators: example and working principles Cloud computing and IoT, Equivalent Microcontroller platform. Setting up the board, Programming for IOT, Reading from sensors Communication: connecting microcontroller with mobile devices, communication through bluetooth and USB, Connection with the internet using wifi/Ethernet</p>
<p>April 2024</p>	<p>Presentation (Case Study: Smart City, Smart Grid, Smart Transportation, Smart Manufacturing, Smart Healthcare) Revision</p>

Priyanka

SOFTWARE ENGINEERING

BCA 2ND YEAR

Subject: SOFTWARE ENGINEERING

Faculty: Ms. Ritu Sharma

Jan 2024	<p>Introduction: Software Crisis, Software Processes & Characteristics. Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models.</p> <p>Software Requirements Analysis & Specifications: Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD, Data dictionaries</p>
Feb 2024	<p>ER Diagrams, Requirements documentation, Nature of SRS, Characteristics & organization of SRS . UNIT – II The Management spectrum, The People The Problem, The Process, The Project. Software Project Planning: Size Estimation like lines of Code & Function Count, Cost Estimation Models, COCOMO, Risk Management.</p> <p>Test & Assignment</p>
March 2024	<p>Cohesion & Coupling, Classification of Cohesiveness & Coupling, Function Oriented Design, Object Oriented Design, Software Metrics: Software measurements: What & Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics Software Implementation: Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style</p> <p>, Test & Assignment</p>
April 2024	<p>Software Testing: Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, Test Activities, Unit Testing, Integration Testing and System Testing, Debugging Activities.</p> <p>Software Maintenance: Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation. Program design, Debugging, Types of errors in programming, Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottomup programming</p> <p>Advantages and disadvantages of Structured programming. Test & Assignment</p>

Ritu Sharma

BCA 2ND YEAR

Basics of Computer-II

Subject: Basics of Computer-II

Faculty: Ms. Ritu Sharma

Jan 2024	Fundamental of computers: Model of a digital computer; Functioning of a digital computer; Types of a digital computer; Advantages of computers. Difference between digital computer and analog computer, Applications of computers: Computers in Commerce, Marketing, Education and Management.
Feb 2024	Software concepts: Types of Software and their role, Different System Software types- Operating systems, Translators, System Utilities; Concept of Application Packages; Types of an Operating system- Multi-user O.S., Multi-tasking O.S., Multi-processing O.S; Time – sharing O.S., Multi-Programming O.S. Operating System as a resource Manager, concept of GUI and CUI. Test and Assignment
March 2024	Introduction to Windows: Components of a Application Window; Types of Windows, Windows as an Operating System, Windows explorer, Using Paintbrush, Control Panel, Installing a printer. User interfaces- CUI and GUI; Concept of a Desktop and Taskbar, My Computer, Recycle Bin, My Documents and Internet Explorer icons. Test and Assignment
April 2024	MS-Excel: Applications of a Spreadsheet; Advantages of an Spreadsheet; Features of Excel; Rows, Columns, Cell, Menus, Creating worksheet, Formatting, Printing, establishing worksheet links, Table creating and printing graphs, Macros, Using Built-in-functions Test and Assignment

(Signature)

Faculty: Ms. Ritu Sharma

Subject: CLIENT SIDE (MCA-2ND)

Jan 2024	Introduction: History of World Wide Web, HTML & HTTP, Scripting Language, Scripting v/s Non-Scripting Languages, Webpages: Static v/s dynamic, Anatomy of a Webpage, The Document Object Model & Containment Hierarchy, Object Referencing, Script and 'Script Fo/ Tag, Script Library, Role of Browsers, Role of Operating System, Concept of Client Side Programming, Difference between ServerSide Programming and Cline Side Programming, Necessity of Client-Side Programming, Pros and Cons of Client Side Programming.
Feb 2024	Client-Side Scripting Languages*: Brief introduction, basic features, relative advantages & disadvantages of popular Client-Side Scripting Languages: HTML, XHTML, CSS, Java Script, JQuery, React, Angular, Vue, VB Script, AJAX Javascript: The Javascript Language-History and Versions, Java v/s Javascript, JavaScript v/s VBScript Dynamic HTML & .javascript, Applications of Javascript. Javascript Programming Constructs: Variables and Data Types, Literals, Built in Objects String, Math and Date Objects; Data type conversion, Expressions and Evaluation, Operators, Control Structures, Functions: Function parameters, Variable Scope; Arrays: Creating, Accessing Array data, Parallel Arrays, Document objects in Arrays. Ho5t Objects: introduction, The Window Object: Accessing Window properties & methods, creating window, Window Properties& Methods Location Object; History Object; Document Object; Link Object.
March 2024	Forms: Form Object, Form Controls as Objects: Text Related Objects, Button Object, Checkbox Object, Radio Object, Select Object, image Object & image Rollovers; Passing Form Data and Elements to Functions; Submitting & Pre-validating Forms. Scripting Frames: Frames: Parents & Children, Referencing among Family Members; Controlling Navigation Frames: Navigation Bars Java script Debuggers; Browsers and the Document Object Model (DoM), Levels-intrinsic Event Handling-Modifying Element Style-The Document TreeDOM Event Handling-Accommodating Noncompliant Browsers Properties of window.CSS: introduction and Features; Difference between css1, css2 & css3; style Rules, Style Rule Locations: style tag, External
April 2024	Style Sheets, Style definition in individual tags; CSS core syntax; Text properties; CSS box model: Box dimensions, Padding, Border, Margins;Selectors: Matching Element by Name, Universal Selector, Matching Element by class, Matching Element by identifier, Matching Element that contains a specific attribute, Matching child, descendent and adjacent sibling elements; Element Positioning; Control Element Visibility; inheritance; Pseudo Classes & PseudoElements; Shorthand Expression, Property Value Metrics. Styles & Formatting Fonts and Text Formatting: Web

typography; Describing Fonts; Font Families Font Style & Size; Colors & Backgrounds: Foreground & Background Color; Sizing Element's Background; Background Images; Repeatin & Scrolling Background Images; Positioning Background Images. Tables Define Table Style; Control Table Attributes.

Reguamp

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: ARTIFICIAL INTELLIGENCE

Class: BCA 4thSem

Faculty: Monika Yadav

January 2024	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction, Assignment 1, Test 1
Feb 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction, Assignment 2, Test 2
March 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, Assignment 3, Test 3
April 2023	Best first search technique, problem reduction, constraint satisfaction, Expert System: Introduction, Representing using domain specific knowledge, Expert system shells. Assignment 4, Test 4



LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: Java Programming

Class: - MCA 2nd Sem

Faculty: Monika Yadav

Jan 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction
Feb 2023	Knowledge Representation: Definition and importance of knowledge, Knowledge representation, Various approaches used in knowledge representation, Issues in knowledge representation. Using Predicate Logic : Representing Simple Facts in logic, Representing instances and is_a relationship, Computable function and predicate.
March 2023	Natural language processing : Introduction syntactic processing, Semantic processing, Discourse and pragmatic processing. Learning: Introduction learning, Rote learning, Learning by taking advice, Learning in problem solving, Learning from example-induction, Explanation based learning
April 2023	Expert System: Introduction, Representing using domain specific knowledge, Expert system shells.



LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: Data Structure- II

Class: - BCA 6thSem

Faculty: Monika Yadav

Jan 2024	Tree: Header nodes, Threads, Binary search trees, Searching, Insertion and deletion in a Binary search tree, AVL search trees, Insertion and deletion in AVL search tree, m-way search tree, Searching, Insertion and deletion in an m-way search tree, B-trees, Searching, Insertion and deletion in a B-tree, B+tree, Huffman's algorithm, General trees.
Feb 2024	Graphs: Warshall's algorithm for shortest path, Dijkstra algorithm for shortest path, Operations on graphs, Traversal of graph, Topological sorting
March 2024	Sorting: Internal & external sorting, Radix sort, Quick sort, Heap sort, Merge sort, Tournament sort, Searching: Liner search, binary search, merging, Comparison of various sorting and searching algorithms on the basis of their complexity.
April 2024	Files: Physical storage devices and their characteristics, Attributes of a file viz fields, records, Fixed and variable length records, Primary and secondary keys, Classification of files, File operations, Comparison of various types of files, File organization: Serial, Sequential, Indexed-sequential, Random-access/Direct, Inverted, Multilist file organization. Hashing: Introduction, Hashing functions and Collision resolution methods .



LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: BCA-308: ARTIFICIAL INTELLIGENCE

Faculty: SHEELA SHARMA

January 2024	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction, Assignment 1,Test1
Feb 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction, Assignment 2,Test 2
March 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, Assignment 3,Test 3
April 2023	Best first search technique, problem reduction, constraint satisfaction, Expert System: Introduction, Representing using domain specific knowledge, Expert system shells. Assignment 4,Test 4

Sheela

LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: STQA

Class: - MCA

Faculty: SHEELA SHARMA

Jan 2023	Minimizing Risks, writing a policy for software Testing, Economics of Testing, Testing an Organizational issues, Management Support for Software Testing, Building A structured approach for S/W testing, Building a test strategy, S/w testing Process, S/W testing Guidelines, workbench concepts, customization of S/W testing process, Process preparation checklists/W testing techniques, Dynamic Testing:- Black Box Testing, White Box Testing, Validation Testing, Static Testing, Regression Testing, Unit Test1.
Feb 2023	S/W Testing Strategy strategies: Approach, Issues, Integration, incremental, system, Alpha, Beta testing etc. Comparative Evaluation of Techniques, Testing tools, system, Dynamic analysis tools, Test data Generators, Debugger, Test Drivers etc. Technical Metrics for S/W: Quality factors, Framework: Metrics for analysis, Design, Test code etc. Unit test 2.
March 2023	Object Oriented Testing: Introduction to Object Oriented Testing, Path Testing, State Testing, class testing, Testing web applications:, web testing, Functional Testing, User interface Testing, Usability, Testing, Configuration and compatible Testing, Security Testing, Performance Testing, Database Testing, Post deployment Testing. Rational Rose S/W: Introduction, Features, various types of S/W testing using Rational Rose. Unit Test 3
April 2023	S/w quality Assurance and Standards: S/W Quality, S/W Quality Challenges, S/w Quality Factors, S/w Quality assurance: Concepts, components, importance and essence, FTR, structured walk through technique etc. , S/w Quality Management Standards, Management and its role in S/W quality Assurance, Quality Standard: ISO 9000 and comparison ISO standards, CMM, CMMI, Unit test 4



LESSON PLAN 2023-24(EVEN SEMESTER)

Subject: LOC-II

Class: - MCA

Faculty: SHEELA SHARMA

Jan 2024	Sequential Logic: Characteristics, Flip-Flops, State table, state diagram and state equations. Flip-flop excitation tables D type, JK, T type and Master Slave flip-flops. Instruction set Selection, Instruction cycle, Instruction Format and Addressing Modes. Clocked RS, DMA transfer, I/O Channels, IOP
Feb 2024	Sequential Circuits: Designing registers – Serial Input Serial Output(SISO), Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters
March 2024	Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Instruction Design & I/O Organization: Machine instruction, I/O Interface, Interrupt structure,
April 2024	Memory & I/O Devices: Memory Parameters, Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers. Semiconductor RAM, ROM. Program-controlled, Interrupt-controlled.

DEPARTMENT OF ECONOMICS

Govt. PG College, Sector 9

Gurugram

LESSON PLAN

(Dr. Meenu Mendiratta)

2023-2024

Teaching Plan
Session Plan 2023-2024
Class - B.A. Eco (Hons.)
Subject – Development Economics II
Semester – IV

JAN

Dualistic Development: Social and Technological dualism; Nurkse disguised unemployment as saving potential, Fei Ranis Theory of Dual Economy. Haris Todaro Modal of Migration.

FEB

Models of Growth: Classical model: Mill Theory, the Marxian model; Keynesian model;

MAR

Inequality and Development: Meaning, Measurement Lorenz Curve, Kuznets Inverted U Shape curve, Inequality and Development:-Inter connection Population Growth and Economic Development.

APR

Capital formation: Meaning and sources; capital output ratio; Human capital: concept and utilization. Foreign aid and Economic Development, Transfer of technology.



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Session Plan 2023-2024
Class - B.A. Eco (Hons.)
Subject – Welfare Economics - II
Semester – IV

JAN

Infinite number of non-comparable optima vs. unique social optimum; Compensation criteria – Contributions of Barone, Kaldor and Hicks.

FEB

The Scitovsky double criterion; Concept of Community indifference map, Samuelson's utility possibility curve. Value judgements and welfare economics Bergson's social welfare function, Arrow's possibility theorem.

MAR

Divergence between private and social costs; Problems of non-market interdependence; Externalities of production and consumption; External economies and diseconomies; Problem of public goods; Pigovian welfare economics.

APR

Revision



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Session Plan 2023-2024
Class - M.A. Eco
Subject – Micro Economics - II
Semester – II

JAN

Oligopoly: non collusive models – Cournot, Bertrand, kinked demand model; collusive models – joint profit maximizing, market sharing and leadership cartels. Critique of neo-classical theory of firm. Theory of Games – Two-person, Zero-sum game, Pure and Mixed strategy, Saddle Point Solution. Alternative theories of firm: Baumol's Sales maximization model (simple, static without advertisement model)

FEB

Morris and Williamson Average/full cost pricing, Bain's limit pricing model, behavioralist model of Cyert and March. Neoclassical theory of factor pricing under competitive conditions, with monopolistic power in product market, monopsonist power in factor market, bilateral monopoly in factor market, monopoly in factor market. Product exhaustion problem. Neoclassical theory of rent, quasi-rent, interest and profit. Issues in General Equilibrium analysis.

MAR

Concept of social welfare, some early criteria, Pareto optimality criterion and efficiency conditions, Bergson's social welfare function, idea of theory of second best and Arrow's impossibility theorem, compensation criterion.

APR

Market structure and welfare maximization. Market failure – case of externality and public goods; and ways of correcting it; Revision.



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Session Plan 2023-2024
Class - B.A. Eco (Pass)
Subject – International Economics
Semester – VI

JAN

Inter-regional and International Trade; Comparative Cost Theory; Hecksher-Ohlin Theory; Rate of Exchange Determination; Mint Par Theory and Purchasing Power Parity Theory.

FEB

Fixed and Flexible Exchange Rate; Exchange Rate Policy in India. Free Trade Vs Protection; Terms of Trade, Exchange Control. Change in Value, Volume, Composition, and direction of Foreign Trade in India since 1991; Balance of Trade and Balance of Payments Structure, causes of adverse Balance of Payment in India and measure to correct it. Foreign Trade Multiplier.

MAR

Objectives, Functions and advantages for India of International Monetary Fund; World Bank; World Trade Organisation and South Asian Association for Regional Cooperation Preferential Trading Arrangement (SAPTA).

APR

Revision



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Lesson Plan 2023-2024
Class - M.A. Eco
Subject – Micro Economics - I
Semester – I

AUG

Nature and scope of Economics and Microeconomics. Positive and normative analysis. Role of assumptions in economic analysis. Circular flow of economic activity. Concepts of: household, firm, factors of production, equilibrium – partial and general, static, comparative static and dynamic analysis, margin and slope.

SEP

Elasticity – need and measures – Relationship between revenue and elasticity. Analysis of consumer behaviour, demand function, law of demand – cardinal, ordinal and revealed preference approaches, income-consumption curve, Engel curve, substitute and complimentary goods. Market demand curve; consequences of Bandwagon, Snob and Veblen effect. Concept of consumer surplus.

OCT

Laws of Production: short run and long run. Internal and External economies and diseconomies. Concept of cost, derivation of short and long run cost curves. Optimum input combination Simple case of a multiproduct firm. Technical progress and production function – Hick's classification. Elasticity of substitution. Properties of Cobb-Douglas and CES production function

NOV

Pricing process and equilibrium of firm and industry under perfect competition, monopoly (including discriminating and bilateral monopoly), monopolistic competition. Welfare effects of price control, price support and production quota



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Lesson Plan 2023-2024
Class - B.A. Eco (Hons.)
Subject – Welfare Economics - I
Semester – III

JUL/AUG

Benthamite Approach to Aggregate Welfare; Optimum Resource Allocation and Welfare Maximization,

SEP

Assumption of Uniform Income–Utility Function of Individuals; Questions of Income Distribution; Issue of Interpersonal Comparisons of Utility.

OCT

Marshallian Welfare Economics; Consumer’s Surplus; Measurement of Consumer’s Surplus– Difficulties involved, Criticism.

NOV

Principle of Compensating Variation; Hicks’s Surpluses; Concept of Consumer’s Surplus; Consumer’s Surplus and Tax-Bounty Analysis.



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Lesson Plan 2023-2024
Class - B.A. Eco (Hons.)
Subject – Development Economics I
Semester – III

JUL/AUG

Basic Concepts of Economic Development: Economic Growth and Development, Concept of underdevelopment and basic characteristics; Determinants and Measurement indicators (PQLI and HDI) of economic development: sustainable economic development.

SEP

Theories of Economic Development: Adam Smith, Karl Marx and Schumpeter.

OCT

Development Approaches to Development: Vicious Circle of Poverty, Lewis dual economy model, Leben stein critical minimum effort theory, balanced vs. unbalanced growth theories.

NOV

Economic Planning and Policy: Development planning: rationale, Strategies and objectives of planning; Role of state and Capital formation in economic development



Dr. Meenu Mendiratta

Department of Economics

Teaching Plan
Lesson Plan 2023-2024
Class - B.A. Eco (Pass)
Subject – Development Economics
Semester – V

JUL/AUG

Features of U.D.C's, Economic Growth and Development; Determinants, Measurement and obstacles of Economic Development, Vicious Circle of Poverty.

SEP

Balanced and Unbalanced Growth Theories, Lewis' Model and Leibenstein's Critical minimum effort thesis.

OCT

Environment, Meaning, features and components of Environment. Scope of Environmental Economics; Environment as a necessity and luxury. Population-Environment linkage. Features of Environment as a public good.

NOV

Natural Resources; Environmental pollution, types, causes and effects. Control policies; Environmental legislations in India. Sustainable Development: meaning; indicators, measurement and importance of Sustainable Development.



Dr. Meenu Mendiratta

Department of Economics

Lesson Plan 2023-24

Name of the Assistant/ Associate Professor.....Dr. Alka.....

Class and Section: ...B.Sc. -1st year (1st Sem).....

Subject : Chemistry

Week	Topics (Organic Chemistry)
3(August)	Structure and Bonding Localized and delocalized chemical bond, van der Waals interactions, resonance: conditions, resonance effect and its applications, hyperconjugation, inductive effect, Electromeric effect & their comparison.
4	Stereochemistry of Organic Compounds-I Concept of isomerism. Types of isomerism. Optical isomerism, elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers, threo and erythro diastereomers, meso compounds, resolution of enantiomers, inversion, retention and racemization Stereochemistry of Organic Compounds-II Relative and absolute configuration, sequence rules, R & S systems of nomenclature. Geometric isomerism determination of configuration of geometric isomers. E & Z system of nomenclature,
1(Sept.)	Conformational isomerism conformational analysis of ethane and n-butane, conformations of cyclohexane, axial and equatorial bonds, Newman projection and Sawhorse formulae, Difference between configuration and conformation. Mechanism of Organic Reactions Curved arrow notation, drawing electron movements with arrows, half-headed and double-headed arrows, homolytic and heterolytic bond breaking.
2	Types of reagents – electrophiles and nucleophiles. Types of organic reactions. Energy considerations. Reactive intermediates carbocations, carbanions, free radicals, carbenes, arynes and nitrenes (formation, structure & stability). Assigning formal charges on intermediates and other ionic species.
3	Alkanes and Cycloalkanes IUPAC nomenclature of branched and unbranched alkanes, the alkyl group, classification of carbon atoms in alkanes. Isomerism in alkanes, sources, methods of formation (with special reference to Wurtz reaction, Kolbe reaction, Corey-House reaction and decarboxylation of carboxylic acids), physical properties.
4	Cycloalkanes nomenclature, synthesis of cycloalkanes and their derivatives – photochemical (2+2) cycloaddition reactions, dehalogenation of -dihalides, pyrolysis of calcium or barium salts of dicarboxylic acids, Baeyer's strain theory and its limitations., theory of strainless rings.

Alka.

1(Oct.)	<p>Topic- Inorganic Chemistry</p> <p>Atomic Structure Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, , quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s, p, d orbitals.</p> <p>Periodic Properties General principles of periodic table: Aufbau and Pauli exclusion principles, Hund's multiplicity rule. Electronic configurations of the elements, effective nuclear charge, Slater's rules. Atomic and ionic radii, ionization energy, electron affinity and electronegativity –definition, methods of determination or evaluation, trends in periodic table (in s & p block elements).</p>
2	<p>Covalent Bond Valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions (BeF₂, BF₃, CH₄, PF₅, SF₆, IF₇, SO₄²⁻, ClO₄⁻) Valence shell electron pair repulsion (VSEPR) theory to NH₃, H₃O⁺, SF₄, ClF₃, ICl₂ and H₂O. MO theory of heteronuclear (CO and NO) diatomic molecules, , bond strength and bond energy, percentage ionic character from dipole moment and electronegativity difference.</p>
3	<p>Ionic Solids</p> <p>Ionic structures (NaCl, CsCl, ZnS(Zinc Blende), CaF₂) radius ratio effect and coordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy (mathematical derivation excluded) and Born-Haber cycle, solvation energy and its relation with solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rule.</p>
4	<p>Topic- Physical Chemistry</p> <p>Gaseous States Maxwell's distribution of velocities and energies (derivation excluded) Calculation of root mean square velocity, average velocity and most probable velocity. Collision diameter, collision number, collision frequency and mean free path. Deviation of Real gases from ideal behaviour.</p>
(1)Nov.	<p>Derivation of Vander Waal's Equation of State, its application in the calculation of Boyle's temperature (compression factor) Explanation of behaviour of real gases using Vander Waal's equation.</p> <p>Critical Phenomenon: Critical temperature, Critical pressure, critical volume and their determination. PV isotherms of real gases, continuity of states, the isotherms of Vander Waal's equation,</p>
2	<p>relationship between critical constants and Vander Waal's constants. Critical compressibility factor. The Law of corresponding states. Liquifaction of gases.</p>
3	<p>Liquid States Structure of liquids. Properties of liquids – surface tension, viscosity vapour pressure and optical rotations and their determination.</p>
4	<p>Solid State Classification of solids, Laws of crystallography – (i) Law of constancy of interfacial angles (ii) Law of rationality of indices (iii) Law of symmetry. Symmetry elements of crystals. Definition of unit cell & space lattice. Bravais lattices, crystal system. Xray diffraction by crystals. Derivation of Bragg equation. Determination of crystal structure of NaCl, KCl. Liquid crystals: Difference between solids, liquids and liquid crystals, types of liquid crystals. Applications of liquid crystals.</p>

A.P.Ka

Name of the Assistant/ Associate Professor.....Dr. Alka.....

Class and Section:.....B.Sc. -1st year (2nd Sem).....

Subject : Chemistry

Week	Topics (Inorganic Chemistry)
3 (Jan)	<p>Hydrogen Bonding – Definition, Types, effects of hydrogen bonding on properties of substances, application Brief discussion of various types of Vander Waals Forces Metallic Bond- Brief introduction to metallic bond, band theory of metallic bond Semiconductors- Introduction, types and applications. Brief discussion on chapter and doubts Test of the above chapter</p> <p>s-Block Elements Comparative study of the elements including , diagonal relationships</p>
4	<p>salient features of hydrides (methods of preparation excluded), solvation and complexation tendencies including their function in biosystems. Brief discussion on chapter and doubts Test of the above chapter Chemistry of Noble Gases- Chemical properties of the noble gases with emphasis on their low chemical reactivity Chemistry of Noble Gases- chemistry of xenon, structure and bonding of fluorides, oxides & oxyfluorides of xenon. Brief discussion on chapter and doubts</p>
1 (Feb)	<p>p-Block Elements- Emphasis on comparative study of properties of p-block elements p-Block Elements -(including diagonal relationship and excluding methods of preparation). Boron family (13th gp):- Diborane – properties and structure (as an example of electron – deficient compound and multicentre bonding)</p>
2	<p>Borazene – chemical properties and structure Trihalides of Boron Trends in lewis acid character structure of aluminium (III) chloride. Carbon Family (14th group) Catenation, p π- d π bonding (an idea), carbides fluorocarbons, silicates structural aspects</p>
3	<p>silicons – general methods of preparations, properties and uses Brief discussion on chapter and doubts Test of the above chapter</p>
4	<p>Nitrogen Family (15th group) Oxides – structures of oxides of N,P. oxyacids – structure and relative acid strengths oxyacids of Nitrogen and phosphorus. Structure of white, yellow, and red phosphorus. Oxyacids of sulphur – structures and acidic strength H₂O₂ –structure, properties and uses.</p>
5	<p>Halogen Family (17th group) Basic properties of halogen, inter-halogens types properties , hydro and oxyacids of chlorine – structure and comparison of acid strength .</p> <p>Paper VI (Theory) Physical Chemistry [CH-202] Kinetics-I Rate of reaction, rate equation, factors influencing the rate of a reaction concentration, temperature, pressure, solvent, light, catalyst.</p>
1(Mar)	<p>Order of a reaction, integrated rate expression for zero order, first order, second and third order reaction. Half life period of a reaction. Methods of determination of order of reaction. Kinetics-II Effect of temperature on the rate of reaction – Arrhenius equation, Theories of reaction rate – Simple collision theory for unimolecular and bimolecular collision Transition state theory of Bimolecular reactions</p>
2	<p>Electrochemistry-I Electrolytic conduction, factors affecting electrolytic conduction, specific, conductance, molar conductance, equivalent conductance and relation among them, their variation with concentration. Arrhenius theory of ionization, Ostwald's Dilution Law. Debye- Huckel – Onsager's equation for strong electrolytes (elementary treatment only) Transport number, definition and determination by Hittorfs methods, (numerical included)</p>

Alka

3	<p>Electrochemistry-II Kohlrausch's Law, calculation of molar ionic conductance and effect of viscosity temperature & pressure on it. Application of Kohlrausch's Law in calculation of conductance of weak electrolytes at infinite dilution. Applications of conductivity measurements: determination of degree of dissociation, determination of K_a of acids determination of solubility product of sparingly soluble salts Conductometric titrations. Definition of pH and pKa Buffer solution, Buffer action, Henderson-Hasselbalch equation, Buffer mechanism of buffer action.</p>
4	<p>Paper VII (Theory) Organic Chemistry [CH-203] Alkenes Nomenclature of alkenes, mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides The Saytzeff rule, Hofmann elimination, physical properties and relative stabilities of alkenes. Chemical reactions of alkenes</p>
5	<p>mechanisms involved in hydrogenation, electrophilic and free radical additions, Markownikoff's rule, hydroboration-oxidation, oxymercuration reduction, ozonolysis hydration, hydroxylation and oxidation with $KMnO_4$ Arenes and Aromaticity Nomenclature of benzene derivatives: Aromatic nucleus and side chain. Aromaticity: the Huckel rule, aromatic ions, annulenes up to 10 carbon atoms aromatic, anti - aromatic and non - aromatic compounds</p>
1(Apr)	<p>Aromatic electrophilic substitution general pattern of the mechanism, mechanism of nitration, halogenation, sulphonation, and Friedel-Crafts reaction. Energy profile diagrams. Activating, deactivating substituents and orientation. Dienes and Alkynes Nomenclature and classification of dienes: isolated, conjugated and cumulated dienes. Structure of butadiene. Chemical reactions 1,2 and 1,4 additions (Electrophilic & free radical mechanism), Diels-Alder reaction</p>
2	<p>Nomenclature, structure and bonding in alkynes. Methods of formation. Chemical reactions of alkynes, acidity of alkynes. Mechanism of electrophilic and nucleophilic addition reactions, hydroborationoxidation of alkynes</p>
3	<p>Alkyl and Aryl Halides Nomenclature and classes of alkyl halides, methods of formation chemical reactions Mechanisms and stereochemistry of nucleophilic substitution reactions of alkyl halides SN_2 and SN_1 reactions with energy profile diagrams Methods of formation and reactions of aryl halides</p>
4	<p>The addition-elimination and the elimination-addition mechanisms of nucleophilic aromatic substitution reactions Relative reactivities of alkyl halides vs allyl, vinyl and aryl halides. Brief discussion on chapter and doubts Doubt session from whole syllabus</p>

Atka.

Lesson Plan (2023-24)

B.Sc. 3rd Semester

INORGANIC CHEMISTRY	
Topics	Time Period
SECTION A Chemistry of Elements of 1st transition series: Definition of transition elements, position in the periodic table, General characteristics & properties of 1st transition elements, Structures & properties of some compounds of transition elements – TiO_2 , VOCl_2 , FeCl_3 , CuCl_2 and $\text{Ni}(\text{CO})_4$	24-29 & 31 july
Section-B Chemistry of Elements of II nd & III rd transition series General characteristics and properties of the II nd and III rd transition elements Comparison of properties of 3d elements with 4d & 5d elements with reference only to ionic radii, oxidation state, magnetic and Spectral properties and stereochemistry	1-5 Aug
Section-C Coordination Compounds Werner's coordination theory, effective atomic number concept, chelates, nomenclature of coordination compounds, isomerism in coordination compounds, valence bond theory of transition metal complexes	7 Aug-12 Aug
Section-D Non-aqueous Solvents Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents with reference to liquid NH_3 and liquid SO_2	14 Aug-19 Aug
Doubt sessions and revisions.	21-26 Aug

Pwja

Lesson Plan

B.Sc. 3rd Semester

PHYSICAL CHEMISTRY

Topics

Time Period

SECTION – A

Thermodynamics-I Definition of thermodynamic terms: system, surrounding etc. Types of systems, intensive and extensive properties. State and path functions and their differentials. Thermodynamic process. Concept of heat and work. Zeroth Law of thermodynamics, First law of thermodynamics: statement, definition of internal energy and enthalpy. Heat capacity, heat capacities at constant volume and pressure and their relationship. Joule's law – Joule – Thomson coefficient for ideal gas and real gas: and inversion temperature.

28-31 & 1-2 sep

SECTION – B

Thermodynamics-II Calculation of w.q. dU & dH for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process, Temperature dependence of enthalpy, Kirchoffs equation. Bond energies and applications of bond energies

4 Sep- 9Sep

SECTION – C

Chemical Equilibrium Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatetier's principle and its applications Clapeyron equation and Clausius – Clapeyron equation its applications. SECTION

11 Sep-16 sep

SECTION – D

Distribution Law Nernst distribution law – its thermodynamic derivation, Modification of distribution law when solute undergoes dissociation, association and chemical combination. Applications of distribution law: (i) Determination of degree of hydrolysis and hydrolysis constant of aniline hydrochloride. (ii) Determination of equilibrium constant of potassium triiodide complex and process of extraction

18-23 sep

P. Singh

Revision and doubt sessions till exams.

25-30 sep

B.Sc. 3rd Semester

ORGANIC CHEMISTRY

Topics	Time Period
<p>Section-A 1. Alcohols Monohydric alcohols nomenclature, methods of formation by reduction of aldehydes, ketones, carboxylic acids and esters. Hydrogen bonding. Acidic nature. Reactions of alcohols. Dihydric alcohols — nomenclature, methods of formation, chemical reactions of vicinal glycols, oxidative cleavage [Pb(OAc)₄ and HIO₄] and pinacol-pinacolone rearrangement. 2. Epoxides Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening, reactions of Grignard and organolithium reagents with epoxides</p> <p>Section-B</p>	<p>3-7 oct & 9-14 oct</p>
<p>.Phenols Nomenclature, structure and bonding. Preparation of phenols, physical properties and acidic character. Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion. Reactions of phenols — electrophilic aromatic substitution, Mechanisms of Fries rearrangement, Claisen rearrangement, Reimer-Tiemann reaction, Kolbe's reaction and Schotten and Baumann reactions.</p>	<p>16-21 oct & 23-28 oct & 30,31 oct</p>

Pw/19

<p>Section-C</p> <p>. Ultraviolet (UV) absorption spectroscopy Absorption laws (Beer-Lambert law), molar absorptivity, presentation and analysis of UV spectra, types of electronic transitions, effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, hyperchromic and hypochromic shifts. UV spectra of conjugated dienes and enones, Woodward-Fieser rules, calculation of max of simple conjugated dienes and α,β-unsaturated ketones. Applications of UV Spectroscopy in structure elucidation of simple organic compounds</p>	<p>2,3,4 & 6-9 nov</p>
<p>Section-D</p> <p>. Carboxylic Acids & Acid Derivatives Nomenclature of Carboxylic acids, structure and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength. Preparation of carboxylic acids. Reactions of carboxylic acids. Hell-Volhard-Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation. Structure, nomenclature and preparation of acid chlorides, esters, amides and acid anhydrides. Relative stability of acyl derivatives. Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution. Mechanisms of esterification and hydrolysis (acidic and basic)</p>	<p>17,18 & 20-25 nov 27-30 Nov</p>
<p>Revision and doubt sessions till exams.</p>	<p>1,2 & 4,5,6 Dec</p>

Pooja

Lesson Plan (2023-24)

B.Sc. 4th Semester

Inorganic chemistry	
Topics	Time Period
Section-A Chemistry of f – block elements Lanthanides Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation, occurrence and isolation, lanthanide compounds.	01- 06jan
Section-B Chemistry of f – block elements Actinides General features and chemistry of actinides, chemistry of separation of Np, Pu and Am from U, Comparison of properties of Lanthanides and Actinides and with transition elements .	08-13 jan
Section-C Theory of Qualitative and Quantitative Inorganic Analysis-I Chemistry of analysis of various acidic radicals, Chemistry of identification of acid radicals in typical combinations, Chemistry of interference of acid radicals including their removal in the analysis of basic radicals.	15-20 jan
Section-D Theory of Qualitative and Quantitative Inorganic Analysis-II Chemistry of analysis of various groups of basic radicals, Theory of precipitation, co- precipitation, Post- precipitation, purification	22-27 jan
Revision and doubt session	29,30,31 jan

Pooja

Lesson Plan

B.Sc. 4th Semester

PHYSICAL CHEMISTRY

Topics	Time Period
Section-A Thermodynamics-III Second law of thermodynamics, need for the law, different statements of the law, Carnot's cycles and its efficiency, Carnot's theorem, Thermodynamics scale of temperature. Concept of entropy – entropy as a state function, entropy as a function of V & T, entropy as a function of P & T, entropy change in physical change, entropy as a criteria of spontaneity and equilibrium. Entropy change in ideal gases and mixing of gases.	1-3 feb
Section-B Thermodynamics-IV Third law of thermodynamics: Nernst heat theorem, statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data. Gibbs and Helmholtz functions; Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities, A & G as criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change. Variation of G and A with P, V and	5-10 feb
Section-C Electrochemistry-III Electrolytic and Galvanic cells – reversible & Irreversible cells , conventional representation of electrochemical cells. EMF of cell and its measurement, Weston standard cell, activity and activity coefficients. Calculation of thermodynamic quantities of cell reaction (ΔG , ΔH & ΔK). Types of reversible electrodes – metal- metal ion gas electrode, metal –insoluble salt- anion and redox electrodes. Electrode reactions, Nernst equations, derivation of cell EMF and single electrode potential. Standard Hydrogen electrode, reference electrodes, standard electrodes potential, sign conventions, electrochemical series and its applications.	12-17 feb

P. S. H.

Section-D Electrochemistry-IV Concentration cells with and without transference, liquid junction potential, application of EMF measurement i.e. valency of ions, solubility product activity 20 coefficient, potentiometric titration (acid- base and redox). Determination of pH using Hydrogen electrode, Quinhydrone electrode and glass electrode by potentiometric methods.	19-24 feb
Revision and doubt sessions till exams.	26-29 feb

B.Sc. Semester

ORGANIC CHEMISTRY

Topics	Time Period
Section-A . Infrared (IR) absorption spectroscopy Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, 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.	1,2 & 4-9 march

P. Vojta

<p>Section-B . Amines Structure and nomenclature of amines, physical properties. Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines. Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds. Gabriel phthalimide reaction, Hofmann bromamide reaction. electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.</p>	<p>11-16 march</p>
<p>Section-C 1. Diazonium Salts Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO₂ and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application. 2. Nitro Compounds Preparation of nitro alkanes and nitro arenes and their chemical reactions. Mechanism of electrophilic substitution reactions in nitro arenes and their reductions in acidic, neutral and alkaline medium.</p>	<p>18-21 march</p>
<p>Section-D . Aldehydes and Ketones Nomenclature and structure of the carbonyl group. 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. Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction. Mannich reaction. Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones, Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, LiAlH₄ and NaBH₄ reductions</p>	<p>1-6 & 8-13 april</p>
<p>Revision and doubt sessions till exams.</p>	<p>15-30 april</p>

Pooja

Lesson Plan (2023-24)

B.Sc. 5th Semester

Inorganic Chemistry

Topics	Time Period
<p>Metal-ligand Bonding in Transition Metal Complexes Limitations of valence bond theory, an elementary idea of crystal-field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal-field parameters.</p>	24-29 july & 31 july
<p>Thermodynamic and Kinetic Aspects of Metal Complex A brief outline of thermodynamic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes of Pt(II).</p>	1-5 aug
<p>Magnetic Properties of Transition Metal Complex Types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. L-S coupling, correlation of μ_s and eff μ values, orbital Contribution to magnetic moments, application of magnetic moment data for 3d metal complexes.</p>	7-12 aug
<p>Electron Spectra of Transition Metal Complexes Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectrochemical series. Orgel-energy level diagram for d1 and d9 states, discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.</p>	14-19 aug
Doubt Sessions & Revision	21-26 aug

Agarwal

Lesson Plan

B.Sc. 5th Semester

Physical Chemistry

Topics	Time Period
<p>Quantum Mechanics-I Black-body radiation, Planck's radiation law, photoelectric effect, heat capacity of solids, Compton effect, wave function and its significance of Postulates of quantum mechanics, quantum mechanical operator, commutation relations, Hamiltonian operator, Hermitian operator, average value of square of Hermitian as a positive quantity, Role of operators in quantum mechanics, To show quantum mechanically that position and momentum cannot be predicated simultaneously, Determination of wave function & energy of a particle in one dimensional box, Pictorial representation and its significance.</p>	28-31 aug & 1,2 & 4-9 sep
<p>Physical Properties and Molecular Structure Optical activity, polarization – (Clausius – Mossotti equation). Orientation of dipoles in an electric field, dipole moment, induced dipole moment, measurement of dipole moment-temperature method and refractivity method, dipole moment and structure of molecules, Magnetic permeability, magnetic susceptibility and its determination. Application of magnetic susceptibility, magnetic properties – paramagnetism, diamagnetism and ferromagnetics.</p>	11 Sep- 16 Sep
<p>Spectroscopy-I Introduction: Electromagnetic radiation, regions of spectrum, basic features of spectroscopy, statement of Born-Oppenheimer approximation, Degrees of freedom.</p> <p>Rotational Spectrum Diatomic molecules. Energy levels of rigid rotator (semi-classical principles), selection rules, spectral intensity distribution using population distribution (Maxwell-Boltzmann distribution), determination of bond length, qualitative description of non-rigid rotor, isotope effect.</p>	18-23 sep

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<p>Spectroscopy-II Vibrational spectrum Infrared spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effects of anharmonic motion and isotopic effect on the spectra., idea of vibrational frequencies of different functional groups.</p> <p>Raman Spectrum: Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules, Quantum theory of Raman spectra.</p>	25-20 sep
Revision and doubt sessions	3-7 oct

Lesson Plan

B.Sc. 5th Semester

Organic Chemistry

Topics	Time Period
<p>NMR Spectroscopy-I Principle of nuclear magnetic resonance, the PMR spectrum, number of signals, peak areas, equivalent and nonequivalent protons positions of signals and chemical shift, shielding and deshielding of protons, proton counting, splitting of signals and coupling constants, magnetic equivalence of protons.</p>	9-14 oct
<p>NMR Spectroscopy-II Discuss ion of PMR spectra of the molecules: ethyl bromide, npropyl bromide, isopropyl bromide, 1,1-dibromoethane, 1,1,2-tribromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone.. Simple problems on PMR spectroscopy for structure determination of organic compounds.</p>	16-21 oct & 23-28 oct 30-31 oct

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<p>Carbohydrates-I Classification and nomenclature. Monosaccharides, mechanism of osazone formation, interconversion of glucose and fructose, chain lengthening and chain shortening of aldoses. Configuration of monosaccharides. Erythro and threo diastereomers. Conversion of glucose into mannose. Formation of glycosides, ethers and esters. Determination of ring size of glucose and fructose. Open chain and cyclic structure of D(+)-glucose & D(-) fructose. Mechanism of mutarotation. Structures of ribose and deoxyribose.</p>	<p>2-4 & 6-9 nov & 17,18 nov</p>
<p>Carbohydrates-II An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.</p> <p>Organometallic Compounds Organomagnesium compounds: the Grignard reagents-formation, structure and chemical reactions. Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions.</p>	<p>20-25 Nov & 27-30 nov</p>
<p>Revision and doubt sessions till exams.</p>	<p>1,2 & 4,6 Dec</p>

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Lesson Plan (2023-24)

B.Sc. 6th Semester

Inorganic Chemistry

Topics	Time Period
<p>Organometallic Chemistry Definition, nomenclature and classification of organometallic compounds. Preparation, properties, and bonding of alkyls of Li, Al, Hg, and Sn a brief account of metal-ethylenic complexes, mononuclear carbonyls and the nature of bonding in metal carbonyls.</p>	1-6 jan
<p>Acids and Bases, HSAB Concept Arrhenius, Bronsted – Lowry, the Lux – Flood, Solvent system and Lewis concepts of acids & bases, relative strength of acids & bases, Concept of Hard and Soft Acids & Bases. Symbiosis, electronegativity and hardness and softness</p>	8-13 jan
<p>Bioinorganic Chemistry Essential and trace elements in biological processes, metalloporphyrins with special reference to haemoglobin and myoglobin. Biological role of alkali and alkaline earth metal ions with special reference to Ca^{2+}. Nitrogen fixation.</p>	15-20 jan
<p>Silicones and Phosphazenes Silicones and phosphazenes, their preparation, properties, structure and uses</p>	23-27 jan
<p>Revision and doubt sessions</p>	29-31 jan

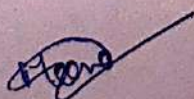
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Lesson Plan

B.Sc. 6th Semester

Physical Chemistry

Topics	Time Period
<p>Spectroscopy-III Electronic Spectrum Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck-Condon principle. Qualitative description of sigma and pi and n molecular orbital (MO) their energy level and respective transitions.</p>	1,2,3 feb & 5-10 feb
<p>Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry: Grotthus-Draper law, Stark- Einstein law (law of photochemical equivalence) Jablonski diagram depicting various processes occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem crossing), quantum yield, photosensitized reactions-energy transfer processes (simple examples).</p>	12-17 feb
<p>Dilute Solutions and Colligative Properties Ideal and non-ideal solutions, methods of expressing concentrations of solutions, activity and activity coefficient. Dilute solution, Colligative properties, Raoult's law, relative lowering of vapour pressure, molecular weight determination, Osmosis law of osmotic pressure and its measurement, determination of molecular weight from osmotic pressure. Elevation of boiling point and depression of freezing point, Thermodynamic derivation of relation between molecular weight and elevation in boiling point and depression in freezing point. Experimental methods for determining various colligative properties. Abnormal molar mass, degree of dissociation and association of solutes.</p>	19-24 feb
<p>Phase Equilibrium Statement and meaning of the terms – phase component and degree of freedom, thermodynamic derivation of Gibbs phase rule, phase equilibria of one component system – Example – water and Sulphur systems. Phase equilibria of two component systems solid-liquid equilibria, simple eutectic Example Pb-Ag system, desilverisation of lead</p>	26-29 feb



Revision and doubt sessions till exams.	1,2 march
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Lesson Plan

B.Sc. 6th Semester

Organic Chemistry

Topics	Time Period
<p>Section A</p> <p>Heterocyclic Compounds-I Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine. Methods of synthesis and chemical reactions with particular emphasis on the mechanism of electrophilic substitution. Mechanism of nucleophilic substitution reactions in pyridine derivatives. Comparison of basicity of pyridine, piperidine and pyrrole</p>	4-9 march
<p>Section B</p> <p>1. Heterocyclic Compounds-II Introduction to condensed five and six-membered heterocycles. Preparation and reactions of indole, quinoline and isoquinoline with special reference to Fisher indole synthesis, Skraup synthesis and Bischler-Napieralski synthesis. Mechanism of electrophilic substitution reactions of, quinoline and isoquinoline</p> <p>2. Organosulphur Compounds Nomenclature, structural features, Methods of formation and chemical reactions of thiols, thioethers, sulphonic acids, sulphonamides and sulphaguanidine. Synthetic detergents alkyl and aryl sulphonates.</p>	11-16 march
<p>Section C</p> <p>1. Organic Synthesis via Enolates Acidity of α-hydrogens, alkylation of diethyl malonate and ethyl acetoacetate. Synthesis of ethyl acetoacetate: the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate. 2. Synthetic Polymers Addition or chain-growth polymerization. Free radical vinyl polymerization, ionic vinyl polymerization, Ziegler-Natta polymerization and vinyl polymers. Condensation or step growth polymerization. Polyesters, polyamides, phenol formaldehyde resins, urea formaldehyde resins, epoxy resins and polyurethanes. Natural and synthetic rubbers.</p>	18-22 march

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Section D

Amino Acids, Peptides & Proteins Classification, of amino acids. Acid-base behavior, isoelectric point and electrophoresis. Preparation of α -amino acids. Structure and nomenclature of peptides and proteins. Classification of proteins. Peptide structure determination, end group analysis, selective hydrolysis of peptides. Classical peptide synthesis, solid-phase peptide synthesis. Structures of peptides and proteins: Primary & Secondary structure.

1-6 april
&
8-13
april

Revision And Doubt Session

15-30
april

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Department of Journalism and Mass Communication

Lesson Plan

Semester – I

Paper – 1 Introduction to Communication

Week – 1

Concept and Definition of Communication

Week – 2

Functions of Communication, History of Communication

Week – 3

Verbal Non Verbal Communication

Week – 4

Intra personal, Inter Personal Communication

Week – 5

Group and Mass Communication

Week – 6

Indian communication traditions

Week – 7

Sadharnikaran, Indian Philosophers

Week – 8

Indian Communicators

Week – 9

SMCR Model, Shanon and Weaver model

Week – 10

Osgood Model, Westley and Maclean Model

Week – 11

Revision



Semester – I
Paper – 2
Writing skills - I

Week – 1

Origin of Writing, Types of Writing

Week – 2

Scope of Writing, Creative Writing

Week – 3

Elements of Writing, Techniques of good Writing

Week – 4

Qualities of Good Writer, Sentence construction

Week – 5

Letter Writing , Article writing

Week – 6

Film Review Writing, Book Review writing

Week – 7

Feature writing

Week – 8

Story writing

Week – 9

Interview writing

Week – 10

Travelogue writing

Week – 11

Revision



Semester – II

Paper – 9 Theories of Mass Communication

Week – 1

Concept and Definition of Mass Communication

Week – 2

Functions of Mass Communication, History of Mass Communication

Week – 3

Hypodermic needle Theory, Two step Flow theory

Week – 4

Multi Step flow theory, Agenda setting theory

Week – 5

Individual difference theory, Use and gratification theory

Week – 6

Cultivation theory, Authoritarian theory

Week – 7

Social Responsibility theory

Week – 8

Democratic participation theory

Week – 9

Revision

Week – 10

Revision

Week – 11

Revision

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Semester – II
Paper – 10
Writing skills - II

Week – 1

Principles of Radio Writing

Week – 2

Radio News Writing

Week – 3

Radio Feature writing

Week – 4

Radio Symposium

Week – 5

Radio Talk, Radio Drama writing

Week – 6

Interview on Radio, Radio Advertisement

Week – 7

Principles of TV Writing

Week – 8

TV News, TV Serial

Week – 9

TV Advertisement

Week – 10

Principles of Cinema Writing, Tele Film writing

Week – 11

Documentary Writing, Feature film writing



Semester – III
Paper – 15
History of Press

Week – 1

Evolution of Paper , Printed book

Week – 2

History of Newspaper and News agencies in world

Week – 3

History of News paper in India

Week – 4

History of Magazine in India

Week – 5

Role of Print Media in Freedom Movement

Week – 6

History of News agencies in India

Week – 7

Press after independence

Week – 8

Press Commission, Press council, Role of press in Emergency

Week – 9

Present status of Newspaper, Magazine in world and India

Week – 10

Revision

Week – 11

Revision



Semester – III

Paper – 17

Reporting and Editing

Week – 1

Reporting and Reporters, Principles of Reporting

Week – 2

Reporting techniques

Week – 3

Qualities of a reporter

Week – 4

News Value, 5 w 1 H

Week – 5

Inverted Pyramid, News sources

Week – 6

Principles of Editing , News Room and News desk

Week – 7

Qualities of sub editor, qualities of a chief sub editor

Week – 8

Writing headlines Basics of page make up,

Week – 9

proof reading

Week – 10

Revision

Week – 11

Revision



Semester – IV
Paper – 22
History of Radio

Week – 1

Invention of Radio in World, Evolution of broadcasting

Week – 2

Growth of Radio in world

Week – 3

Radio during world war

Week – 4

History of Radio in India

Week – 5

AIR, FM Radio

Week – 6

Chanda Committee

Week – 7

Vergese committee

Week – 8

Parsar Bharti act, Community Radio

Week – 9

Present status of Radio in world and India

Week – 10

Revision

Week – 11

Revision



Semester – IV
Paper – 24
Radio Journalism

Week – 1

Radio as a Medium

Week – 2

Radio stations

Week – 3

Radio Newsroom

Week – 4

Radio News bulletin

Week – 5

News Reading

Week – 6

Audio Equipments

Week – 7

Current affair programmes

Week – 8

Radio commentary, Production crew

Week – 9

Satellite Radio, Digital Radio, Online Radio, HAM Radio

Week – 10

Revision

Week – 11

Revision



Lesson Plan: BA 1st semester 2023-24
INTRODUCTION TO PSYCHOLOGY

Name of Associate/Assistant Professor: Sonika Dangi

Dates	Content
August	Psychology: History, Emergence as Science Subject matter. Methods of Psychology: Experimental, Observation, Survey
September	Sensory Processes: Visual, Auditory – Structure and Functions of Eye and Ear.
October	Perception: Nature, Perception of form – Figure and ground, Perceptual Organization, Depth Perception–cues.
	Emotion: Nature, Bodily changes. Theories of Emotion: James-Lange, Cannon-Bard and Schachter–Singer. Motivation: Nature, Biological and Psychological Motives
November	Personality: Nature, Determinants of personality, Type and Trait approach. Intelligence: Nature, Theories: Spearman, Thurstone, and Cattell.
	Revision

Sonika Dangi

Lesson Plan: BA 2nd semester 2023-24
EXPERIMENTAL PSYCHOLOGY

Name of Associate/Assistant Professor: **Dr. Satyam Bhambhu and Sangeeta**

Dates	Content
01.01.2024 15.01.2024	Attention: Nature, Characteristics, and types. Psychophysics: Problems of Psychophysics and Methods (Classical).
16.01.2024- 31.01.2024	Learning: Definition, Factors affecting, Trial and error learning, Insight learning, Classical and Operant conditioning
01.02.2024 15.02.2024	Learning: Definition, Factors affecting, Trial and error learning, Insight learning, Classical and Operant conditioning.
16.02.2024 29.02.2024	Memory: Definition, Stages, STM and LTM – Methods to Study Memory.
01.03.2024 15.03.2024	Forgetting: Factors leading to forgetting, Pneomonics
16.03.2024 31.03.2024	Problem solving: Stages of problem solving, Convergent and Divergent thinking.
01.04.2024 15.04.2024	Statistics: Frequency Distribution, Graphical presentation of data, Measures of central tendencies.
16.04.2024 Till Exam	Revision



Lesson Plan: BA 3rd semester 2023-24

Social Psychology

Name of Associate/Assistant Professor: Sangeeta

Dates	Content
21.07.2023- 10.08.2023	Social Psychology-Introduction, Nature and subject matter of Social Psychology, Relationship of Social Psychology with other Science, Sociometric- methods introduction Techniques of Sociometric analysis
11.08.2023- 31.08.2023	Evaluation Nature of Socialization,Types of Socialization, Processes of Socialization, Content and outcome of socialization, Social Group- Nature Characteristics of social Group, General Functions of Group, Nature of Social Norms, Characteristics of Social Norms Test and Assignment submission
01.09.2023- 20.09.2023	Formation of Social Norms, Function of Group Norms, Leadership- Meaning & Definition Style of Leadership, Function of Leader Theories of Leadership,Theories of Leadership Nature of Attitudes, Components of Social Attitude, Formation and Development of Social Attitude
21.09.2023- 10.10.2023	Types of Attitude change, Attitude Assessment, Nature of Prejudice, Types of Prejudice, Development of Prejudice Main effects of Prejudice Methods to reduce and eliminate Prejudice, Meaning and Definition of Stereotype Test and Assignment submission
11.10.2023- 31.10.2023	Determinants of Stereotype Significance of Stereotype Nature of Prosocial Behaviour Cognitive Model
01.11.2023- 22.11.2023	Determinants of Helping Behaviour, Theoretical Explanation of Helping Behaviour Co-operation
23.11.2023- till exam	Test: Stereotype Assignment: Prosocial Behaviour

Sangeeta

Sangeeta

Lesson Plan: BA 4th semester 2022-23

Developmental Psychology

Name of Associate/Assistant Professor: Sangeeta

Dates	Content
01.01.2024 15.01.2024	Developmental Psychology Different branches of Psychology Application of Developmental Psychology Historical antecedents of Developmental Psychology Advantage of Developmental Psychology
16.01.2024 31.01.2024	Developmental Questions, Paradigm issues Nature vs. Nurture Stability vs. Change Continuity vs. Discontinuity Human Development Difference between Growth and Development, Concept from psychology perspective Human Development Concept of Human Development, Principal of Human Development.
01.02.2024 15.02.2024	Theories of Development, Freud Stages of Development Factors in human development, Biological Factors Social Factors Cultural Factors Environment Factors Psycho social Factors Test: Factors in human development Assignment: Define Human Development and principles of Development
16.02.2024 29.02.2024	Childhood overall introduction Infancy: Hazards Different theories of Child Development Adolescents overall adjustment Adolescents Characteristics Problems of Adolescents.
01.03.2024 15.03.2024	Adulthood: Introduction Early adulthood late adulthood aging-Changing patterns Difference between late adulthood and aging-Changing patterns Adulthood Problem June
16.03.2024 31.03.2024	Basic of Statistics Basic of Mean, Median, Mode Measures of variability Quartile deviation Standard Deviation and Numerical
01.04.2024 15.04.2024	Test: Statistics numerical questions Basic of Statistics Basic of Mean, Median, Mode Measures of variability Quartile deviation Standard Deviation and Numerical Test and Assignment submission Test: Statistics numerical questions
16.04.2024 Till Exam	Assignment and Revision

Sangeeta

Sangeeta

Lesson Plan: BA 5th semester 2023-24

PSYCHOPATHOLOGY

Name of Associate/Assistant Professor: **Satyam Bhambhu**

Dates	Content
21.07.2023-10.08.2023	Psychopathology-Introduction, Psychopathology-History, The Emergence of Scientific Theories & Therapies, Concept of Normality & Abnormality
11.08.2023-31.08.2023	Statistical Criteria, Cultural or social criteria, Characteristics of Normal Personality, Models of Psychopathology, Biological Model, Psychodynamic model
01.09.2023-20.09.2023	Motivational Elements-Dynamics, Developmental Model, Behavioural Model, Cognitive Model, Humanistic Model, Test and Assignment submission Test: Concept of Normality & Abnormality Assignment: Models of Psychopathology
21.09.2023-10.10.2023	Classification of Psychopathology, DSM-IV-TR, Axis -III, Psychosocial and Environmental problems, Nature and need of Assessment, Case History Method, Formulation of the case, Recommendations and Predictions, Psychological Test MMPI, WAT
11.10.2023-31.10.2023	Anxiety -based Disorders-Neurosis, General Symptoms of Psychoneurosis, Phobic disorders, Obsessive-Compulsive Disorder, Substance/Drug Abuse, General Causes of Drug Intake, Consequences of Drug Abuse, Rehabilitation, Revision of substance/ Drug Abuse, Test and Assignment submission Test: Anxiety -based Disorders Assignment: Psychological Test
01.11.2023-22.11.2023	Mood Disorders-Introduction, Depressive Disorders, Etiology of Depressive Disorders, Bipolar Disorders-Etiology and Treatment, Schizophrenia-Meaning & Definition, Etiology, Treatment, Psychosomatic Disorders, Mental Retardation, Clinical Intervention, Test and Assignment submission Test: Mood Disorders Assignment: What do you understand by Schizophrenia?
23.11.2023-till exam	Revision



Lesson Plan: BA 6th semester 2023-24

APPLIED PSYCHOLOGY

Name of Associate/Assistant Professor: Satyam Bhambhu

Dates	Content
01.01.2024 15.01.2024	Applied Psychology-Introduction, History, fields and career in psychology, Revision of Applied Psychology-Introduction, History, fields and career in psychology, Organizational Psychology-Nature Organizational psychology-scope, Objectives and development of Organizational Psychology
16.01.2024- 31.01.2024	Objectives and development of Organizational Psychology, Revision of Organizational Psychology, Guidance-introduction, Guidance-objectives, and Principles of Guidance
01.02.2024 15.02.2024	Types of Guidance, Organization Guidance Programme, Revision of Guidance, Test:Organizational Psychology
16.02.2024 29.02.2024	Assignment and Revision: Applied Psychology-Introduction, History, fields and career in psychology, Counselling-Need Principles of Counselling, Special areas of Counselling,
01.03.2024 15.03.2024	Types of Counselling Counselling Sessions, Revision of Counselling, Health Psychology- Brief History, Meaning and Definition of Health Psychology
16.03.2024 31.03.2024	Model of Health Psychology, Bio-psychological Model, Division of Health Psychology,
01.04.2024 15.04.2024	Scope of Health Psychology, Objective of Health Psychology, Concept of Health, Concept of Illness, Meaning &Definition of Stress Coping, Coping Strategies, Resource affecting Coping Lifestyle & Health, Psychological factors in Physical Illness
16.04.2024 Till Exam	Test: Stress Assignment: Health Psychology, Revision

Satyam.

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper-Methods In social Research

Class – B.A. 2nd Year
Semester – 3rd
Session – July2023 –December 2023

DATE	B.A. 2nd year
21-7-23 to 31-7-23	Nature, Definition and Steps of Social Research;
1-8-23 to 15-8-23	Objectivity and Subjectivity in Social Research
16-8-23 to 31-8-23	Nature & Characteristics of observation, Interview
1-9-23 to 15-9-23	Case Study, Content Analysis
16-9-23 to 30-9-23	Social Survey - Their Importance in Social Research Assignment -1
1-10-23 to 15-10-23	Nature & Characteristics; Research Design,
16-10-23 to 31-10-23	Class discussion on major social research and their impact on society in last few years
1-11-23 to 9-11- 23	Sampling and Hypothesis : Their Nature, Types and Importance of Social Research
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Classification and Tabulation of Data Measures of Central Tendency, Mean, Mode & Median; Use of Computer in Data Analysis
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Monika

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper-Contemporary sociological Thinker

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Levels of Theorisation in Sociology : Its origin and Contemporary Status ; Merton's Scheme of Theorization ;
1-8-23 to 15-8-23	Daherendorf's Class and Class Conflict and Coser's Functions of Social Conflict.
16-8-23 to 31-8-23	Alfred Shutz's, Concept of Life World ; Peter Berger and Luckmann's Social Construction of Reality
1-9-23 to 15-9-23	Garfinkel's Ethnomethodology and Goffman's Dramaturgical Approach.
16-9-23 to 30-9-23	J. Alexander's Neo-Functional Approach ; Habermas's Legitimation Theory
1-10-23 to 15-10-23	Louis Althusser's idea of Marxist structuralism and Gramsci's Notion of Hegemony.
16-10-23 to 31-10-23	Structural and Post Modernist Theory : Gidden's Structuration Theory;
1-11-23 to 9-11- 23	Derrida's Deconstructionist Approach
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Foucault's Post Modernist Theory.
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Monika

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrrawat
Subject – Sociology
Paper-Rural Sociology

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Introduction to Rural Sociology: Its origin, Nature and Subject Matter, Importance of the Study of Rural Sociology,
1-8-23 to 15-8-23	Rural-Urban Differences, Rurbanism, Nature of Village Studies in India.
16-8-23 to 31-8-23	Rural Social Structure: Caste and Class in Rural Set up, Inter Caste Relations and Jajmani System
1-9-23 to 15-9-23	Trends of Change in Rural Society, Agrarian Class Structure, Rural Family and Changing pattern.
16-9-23 to 30-9-23	Rural Economy: Land Tenure, Land Reforms,
1-10-23 to 15-10-23	Green Revolution and its Impact, Bonded and Migrant Labourers
16-10-23 to 31-10-23	Rural Political Structure: Traditional Caste Panchayats; New Panchayati Raj and Empowerment of Peoples;
1-11-23 to 9-11- 23	Emerging pattern of Rural Leadership
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Rural Leadership and Factionalism.
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Monika

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrrawat
Subject – Sociology
Paper-Sociology of Population Studies

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Importance of Population Studies. Sources of Population Data:
1-8-23 to 15-8-23	Census, Civil Registration, Population Register. Sample Surveys and National Family and Health Surveys (NFHS),
16-8-23 to 31-8-23	Population Theories: Biological, Malthusian
1-9-23 to 15-9-23	Marxian and Demographic Transition Theory.
16-9-23 to 30-9-23	Population Size, Distribution and Characteristics of India's Population: Growth of Indian Population since 1901
1-10-23 to 15-10-23	Age Structure, Sex Ratio, Literacy Levels, Rural – Urban Composition, Economic Participation and Religion.
16-10-23 to 31-10-23	Population Dynamics and control: Fertility, Mortality
1-11-23 to 9-11- 23	Migration: Measurement Determinants and Consequences.
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Family Planning Programme in India.
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Monika

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrrawat
Subject – Sociology
Paper- Industrial Sociology

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Concept and Perspective; Nature and Scope of Industrial Sociology;
1-8-23 to 15-8-23	Division of Labour, Bureaucracy,Rationality,
16-8-23 to 31-8-23	Production Relations; Surplus value and Alienation.
1-9-23 to 15-9-23	Factory as a Social System; Formal and Informal organization;
16-9-23 to 30-9-23	Impact of Industry on Society; Management Relations
1-10-23 to 15-10-23	Motivation theories (F.Harzberg, D.Mcgregor and A. Maslow);
16-10-23 to 31-10-23	Theories of Trade Union (Sydney and Webb; Tannenbaum and Pearlmén)
1-11-23 to 9-11- 23	Industrialization and Social Change: Limitations of Industrialization;
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Labour Legislation; Features of Post Industrial Society.
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

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Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper- Sociology of Kinship, Marriage and Family

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Basic Terms and Concepts: kinship-as an organizing principle;
1-8-23 to 15-8-23	Lineage, Clan, Phratry, Moitey; Marriage: Alliance Theory; Symmetrical & Asymmetrical exchange
16-8-23 to 31-8-23	Family and Rules of Residence: Virilocal, Uxorilocal, Neolocal.
1-9-23 to 15-9-23	Meaning of Kinship; Kinship Terminology; Descent, Classification of Descent
16-9-23 to 30-9-23	Types of Kinship: (Consanguine and Affinal), Kinship Usuages: Incest, Incest Taboo.
1-10-23 to 15-10-23	Marriage: Meaning, Forms of Marriage; Patterns of Selection of Spouse, Marriage rites; Age at Marriage; Bride Price; Practice of Dowry;
16-10-23 to 31-10-23	Divorce and Widow Remarriage; Emerging forms of Marriage: Living Relationship, Contract Marriage.
1-11-23 to 9-11- 23	Family: Meaning, Characteristics of family; distinction between family and household; Origin of family; types and Functions of Family
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	Emerging forms of family: single parent family, dual earner family; crisis in family
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Monika

Government College, Sector 9 Gurugram

Department of sociology

Lesson Plan for 2023-2024 (Odd Semester)

Name of Assistant Professor – Monika Sehrrawat
Subject – open elective
Paper- Disaster management

Class – M.A. 2nd Year
Semester – 3rd
Session – July 2023–December 2023

DATE	M.A. 2nd year
21-7-23 to 31-7-23	Disaster- Causes and phases of disaster, Rapid onset and slow onset disasters. Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Seismic activities.
1-8-23 to 15-8-23	Changes in Coastal zone, coastal erosion, beach protection. Coastal erosion due to natural and man made structures.
16-8-23 to 31-8-23	Floods and Cyclones: causes of flooding, Hazards associated with flooding. Flood forecasting.
1-9-23 to 15-9-23	Flood management, Integrated Flood Management and Information System (IFMIS), Flood control. Water related hazards- Structure and nature of tropical cyclone, Tsunamis – causes and physical characteristics, mitigation of risks.
16-9-23 to 30-9-23	Earthquakes: Causes and characteristics of ground-motion, earthquake scales, magnitude and intensity, earthquake hazards and risks,
1-10-23 to 15-10-23	Volcanic land forms, eruptions, early warning from satellites, risk mitigation and training, Landslides.
16-10-23 to 31-10-23	Mitigation efforts: UN draft resolution on Strengthening of Coordination of Humanitarian Emergency Assistance,
1-11-23 to 9-11- 23	International Decade for Natural Disaster Reduction (IDNDR),
10-11-23 to 16-11-23	DIWALI BREAK
17-11-23 to 30-11-23	.Policy for disaster reduction, problems of financing and insurance.
1-12-23 to 6-12-23	Test and revision
7-12-23 TO 23-12-23	Examination
24-12-23 to 31-12-23	Winter Break

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper-Indian Society

Class – B.A. 2nd Year
Semester – 4th
Session – JAN 2024 to June 2024

DATE	B.A. 2nd year
1-1-24 to 15-1-24	Evolution of Indian Society: Traditional view of Indian Society; Factors Promoting, Unity and Diversity in India; India as Pluralistic Society, Multi-Ethnic; Multi-Religious; Cultural and Lingual
16-1-24 to 31-1-24	Indian Social Institutions: Kinship, Family, Marriage;
1-2-24 to 15-2-24	Caste and its Changing Dimensions.
16-2-24 to 29-2-24	Processes of Social Change in India: Sanskritization, Westernization, Parochialization and Universalization
1-3-24 to 22-3-24	Social Issues and Problems: Gender Discrimination, Secularism and Religious
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	Minorities, Problems of Dalits, Women and OBC and Affirmative Actions
16-4-24 to 30-4-24	Revision, Assignments and Test
1-5-24 onwards	Examination

Monika

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehwat
Subject – Sociology
Paper -Social Stratification and Mobility

Class – M.A. 2nd Year
Semester – 4th
Session – Jan 2024 to June 2024

DATE	
1-1-24 to 15-1-24	Social Stratification ; Social Differentiation
16-1-24 to 31-1-24	Hierarchy ; Inequality.Caste, Class, Power,
1-2-24 to 15-2-24	Gender, Ethnicity, Theories of Social Stratification : Functional Theory - Davis and Moore, Parsons;
16-2-24 to 29-2-24	Conflict Theory - Marx, Dahrendorf; Multidimensional - Weber, Parkin.
1-3-24 to 22-3-24	Nature and Types of Social Mobility; Factors of Social Mobility;
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	Mobility within Caste and Class; Emergence of Middle Class
16-4-24 to 30-4-24	Revision, Assignments and Test
1-5-24 onwards	Examination

Monika

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper- Rural Development and Change

Class – M.A. 2nd Year
Semester – 4th
Session – Jan 2024 to June 2024

DATE	
1-1-24 to 15-1-24	Changing Conceptions of Rural Development: Economic Growth, Human Development, Social, Development and Sustainable Rural Development.
16-1-24 to 31-1-24	Development Before and After Independence in India. State Sponsored Programmes: Community Development Programmes (CDP). Objectives and Strategies.
1-2-24 to 15-2-24	Green Revolution and its Socio-Economic Consequences, Integrated Rural Development Programme.
16-2-24 to 29-2-24	Mahatma Gandhi National Rural Guarantee Employment Act, Objectives and Strategies, Performance, Critical Appraisal.
1-3-24 to 22-3-24	Land Reforms, Panchayati Raj before and after 73rd Amendment, Rural Leadership and Factionalism.
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	Empowerment of People, Village cooperatives; Objectives and Strategies of change. Trends of change in Rural Society; Subsistence to Market Economy, Unemployment,
16-4-24 to 30-4-24	Caste Panchayats/Khaps and Exclusion and the Plight of Scheduled Castes and Women.
1-5-24 onwards	Examination

Monika

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper- Urban Sociology
2024

Class – M.A. 2nd Year
Semester – 4th
Session – Jan 2024 to June

DATE	
1-1-24 to 15-1-24	Concepts & Issues: Meaning and Scope of Urban Sociology,
16-1-24 to 31-1-24	Characteristics of Urban and Rural Community, Rural-Urban Contrast.
1-2-24 to 15-2-24	Theories of City: Metropolis (George Simmel); Urbanism (Louis-Wirth);
16-2-24 to 29-2-24	Rural-Urban continuum as cultural form (Robert Redfield); Theory and Pattern of City Growth (Burges)
1-3-24 to 22-3-24	Urban Social Structure: Family, Religion, Recreation, Occupation and Culture.
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	The City: Growth & Causes of City; Characteristics & Types of Cities; Urbanization – Meaning and its factors; Social Consequences & Impact of Urbanization
16-4-24 to 30-4-24	Revision, Assignments and Test
1-5-24 onwards	Examination

Monika

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper- Political Sociology
2024

Class – M.A. 2nd Year
Semester – 4th
Session – Jan 2024 to June

DATE	
1-1-24 to 15-1-24	Nature and Scope of Political Sociology, Sociology of Politics and Politics of Sociology
16-1-24 to 31-1-24	Basic Concepts: Bureaucracy, Authority and its Bases, Power, Elites, Political parties, Pressure Group,
1-2-24 to 15-2-24	Political Culture, Political Socialization and Political Participation
16-2-24 to 29-2-24	Approaches for the Study of Political System: Structural Functional, Conflict School, System Analysis and Behavioural Approach
1-3-24 to 22-3-24	Types of Political System: Primitive, Traditional and Modern
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	Political development and Social Change; Ideology and Political System
16-4-24 to 30-4-24	Revision, Assignments and Test
1-5-24 onwards	Examination

Monika

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika Sehrawat
Subject – Sociology
Paper-Contemporary Issues in Indian Society
2024 to June 2024

Class – M.A. 2nd Year
Semester – 4th

Session – Jan

DATE	
1-1-24 to 15-1-24	Socio-Economic issues: Poverty, Inequality of Caste and gender, Family disharmony – domestic violence, Dowry, Divorce
16-1-24 to 31-1-24	Developmental Issues: Population and Development, Regional disparity,
1-2-24 to 15-2-24	Development and displacement, Environment degradation and change, slums.
16-2-24 to 29-2-24	Current debates: Tradition and Modernity in India; Secularism and communalism,
1-3-24 to 22-3-24	Role of civil society and development.
23-3-24 to 31-3-24	HOLI BREAK
1-4-24 to 15-4-24	Contemporary Challenges: Globalization, Liberalization and Privatization
16-4-24 to 30-4-24	Revision, Assignments and Test
1-5-24 onwards	Examination

Monika