

## 1.1 Curricular Planning and Implementation

### 1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

#### Response:

The college emphasizes on providing quality education and ensures effective curriculum delivery. The institute pursues the curriculum provided by the affiliating university i.e. MDU, Rohtak and aims at holistic development of students. Faculty members from the college have been nominated as members of Board of Studies and worked in curriculum forming committees of the university. The curriculum taught inculcates human values in students and sensitizes them towards environmental and gender issues. The institution ensures effective curriculum delivery through a well-planned system.

#### ACADEMIC CALENDER

- It is provided by the affiliating university at the commencement of every session.
- The college streamlines its academic process by preparing its own schedule of activities accordingly.

#### ASSESSMENT OF ATTAINMENT OF LEARNING OBJECTIVES

- Formative assessment is done to assess the level of learning of the students.
- Extra classes are conducted for slow learners.
- Students prepare assignments and give presentations.
- Internal assessment is done on the basis of tests and assignments.
- Final assessment is done through university examinations.

#### EXTRA CURRICULAR ACTIVITIES

- Seminars and Extension Lectures for students.
- Awareness regarding health and hygiene for girl students.
- **Diwali Mela, Falguni Utsav, Mehendi Competition** etc. are organized for overall development of students.
- **Quiz, declamation, debate** etc. are organized for improving the vocational skills of students.
- Various sports activities are organized for building comradeship and leadership qualities among students.
- **Annual Prize Distribution and Convocation** are organized for the motivation and encouragement of students.
- **Earn While You Learn** program for the financial aid and upliftment of students.
- **Tree plantation** is organized for campus beautification and carbon negative campaign.
- **Traffic and Nature Interpretation Centre** organized awareness campaign regarding the same.
- **Yoga Day** is celebrated on 21 June every year.
- **Constitution Day** is celebrated on 26 November every year.

- **Memorandum Days** including Republic Day (26 January), Martyrdom Day (23 March), Independence Day (15 August), Haryana Heroes' Martyrdom Day (23 September) are celebrated every year.

### **LIBRARY**

- The college has a well-maintained library with adequate number of books.
- Students get books issued on the days assigned to their respective classes.
- Ample number of magazines and daily newspapers are available for the students to peruse.
- Record is maintained by the library.

### **LESSON PLAN**

- Faculty members prepare lesson plans for their respective subjects to ensure effective delivery of the curriculum.

### **LABORATORIES**

- The college maintains well-equipped laboratories to cater to the needs of the students.
- Practical exams are conducted and students prepare manuals.
- Field work and Project Work are also conducted by different departments.

### **MENTOR-MENTEE SYSTEM**

- Small group of students is allotted to individual faculty members.
- Various academic and other issues are addressed and resolved through these sessions.

### **TEACHING AIDS**

- Besides the traditional chalk and board, the faculty members also use charts, maps, models, etc.
- Quiz, Group-Discussions, Educational Field Trips and Excursions are also organized.
- Role-play and case studies focus on the practical application of knowledge.
- Smart boards and PPTs are used to deliver lectures.
- To tackle the situation actuated by Covid-19 the faculty members made sure the continuity of teaching-learning process through online platforms like Google Meet, WhatsApp, Youtube, etc. Students were also provided with e-content.

### **TIME-TABLE COMMITTEE**

- The Time-Table committee prepares the over-all time-table of the college,
- All the departments make their own time-tables as well which are duly displayed on college website and notice boards.

### **TEACHER SUPPORT**

- The college assures faculty development by encouraging the members to participate in orientation, refresher programmes and workshops.
- Faculty members also participate in workshops related to curriculum development.

### **FEEDBACK**

- The college takes feedback from students, parents and faculty members.
- The college assesses its performance and improves in requisite areas after analyzing the feedback.

Hence, the institute makes every effort to groom the students thus empowering and capacitating them to deal with the challenging future.

Govt College Meham, Rohtak , Haryana  
Lesson Plan session 2021-22

Name of Assistant Professor: Dr Ruman Rani

**Class:** B Sc (NM)-1<sup>st</sup> Year

**Semester :** IInd

**Subject:** Inorganic Chemistry+ Organic Chemistry

| Month | Week | Topic  |
|-------|------|--|
| March | 3rd  | Nomenclature of alkenes, mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides.   |
|       | 4th  | The Saytzeff rule, Hofmann elimination, physical properties and relative stabilities of alkenes.   |
| April | 1st  | Chemical reactions of alkenes mechanisms involved in hydrogenation, electrophilic and free radical additions, Markownikoff's rule  |
|       | 2nd  | hydroboration-oxidation, oxymercuration-reduction, ozonolysis, hydration, hydroxylation and oxidation with KMnO <sub>4</sub> ,   |
|       | 3rd  | 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.  |
|       | 4th  | 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.   |
| May   | 1st  | s-Block Elements: Comparative study of the elements including diagonal relationships, salient features of hydrides (methods of preparation excluded), solvation and complexation tendencies including their function in biosystems.  |
|       | 2nd  | Chemistry of Noble Gases Chemical properties of the noble gases with emphasis on their low chemical reactivity, chemistry of xenon, structure and bonding of fluorides, oxides & oxyfluorides of xenon   |
|       | 3rd  | Boron family (13th gp):- Diborane – properties and structure (as an example of electron-deficient compound and multicentre bonding), Borazine – chemical properties and structure Trihalides of Boron – Trends in Lewis acid character structure of aluminium (III) chloride. Carbon Family (14th group) Catenation, pπ-dπ bonding (an idea), carbides, fluorocarbons, silicates structural aspects), silicons – general methods of preparations, properties and uses. |
|       | 4th  | 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, Nomenclature, structure and bonding in alkynes. Methods of formation. Chemical reactions of alkynes, acidity of alkynes. Mechanism of electrophilic and nucleophilic addition reactions, hydroboration-oxidation of alkynes  |
| June  | 1st  | Nomenclature and classes of alkyl halides, methods of formation, chemical reactions. Mechanisms and stereochemistry of nucleophilic substitution reactions of alkyl halides, SN <sub>2</sub> and SN <sub>1</sub> reactions with energy profile diagrams.   |
|       | 2nd  | Methods of formation and reactions of aryl halides, The addition-elimination and the elimination-addition mechanisms of nucleophilic aromatic substitution reactions. Relative reactivities of alkyl halides vs allyl, vinyl and aryl halides.   |
|       | 3rd  | Revisions and class test   |
|       | 4th  | Revisions and class test   |

Govt College Meham, Rohtak , Haryana  
Lesson Plan session 2021-22

Name of Assistant Professor: Dr Ruman Rani

**Class:** B Sc (NM)-2<sup>nd</sup> Year

**Semester :** IV

**Subject:** Inorganic Chemistry+ Organic Chemistry

| Month | Week | Topic  |
|-------|------|--|
| March | 3rd  | Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, measurement of IR spectrum, fingerprint region,  |
|       | 4th  | 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.  |
| April | 1st  | Structure and nomenclature of amines, physical properties. Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines.  |
|       | 2nd  | Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds. Gabrielphthalimide reaction,   |
|       | 3rd  | Hofmann bromamide reaction. electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.   |
|       | 4th  | Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO <sub>2</sub> and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application |
| May   | 1st  | 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.   |
|       | 2nd  | Lanthanides: Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation, occurrence and isolation, lanthanide compounds  |
|       | 3rd  | 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 .   |
|       | 4th  | Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,  |
| June  | 1st  | Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate., Physical properties.  |
|       | 2nd  | Comparison of reactivities of aldehydes and ketones. Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol, Perkin and Knoevenagel condensations..  |
|       | 3rd  | Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones, Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, LiAlH <sub>4</sub> and NaBH <sub>4</sub> reductions..   |
|       | 4th  | Revisions and class test   |

Govt College Meham, Rohtak , Haryana  
Lesson Plan session 2021-22

Name of Assistant Professor: Dr Ruman Rani

**Class:** B Sc (NM)-3<sup>rd</sup> Year

**Semester :** VI

**Subject:** Inorganic Chemistry+ Organic Chemistry

| Month | Week | Topic   |
|-------|------|---|
| March | 3rd  | Heterocyclic Compounds-I: Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine.   |
|       | 4th  | 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   |
|       |      |   |
| April | Ist  | Heterocyclic Compounds-II: Introduction to condensed five and six- membered heterocycles. Preparation and reactions of indole, quinoline and isoquinoline with special reference to Fischer indole synthesis,   |
|       | 2nd  | Skraup synthesis and Bischler-Napieralski synthesis. Mechanism of electrophilic substitution reactions of, quinoline and isoquinoline   |
|       | 3rd  | Organosulphur Compounds Nomenclature, structural features, Methods of formation and chemical reactions of thiols  |
|       | 4th  | thioethers, sulphonic acids, sulphonamides and sulphaguanidine. Synthetic detergents alkyl and aryl sulphonates   |
|       |      |   |
| May   | Ist  | Organic Synthesis via Enolates: Acidity of $\alpha$ -hydrogens, alkylation of diethyl malonate and ethyl acetoacetate. Synthesis of ethyl acetoacetate: the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate.  |
|       | 2nd  | 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. |
|       | 3rd  | Classification, of amino acids. Acid-base behavior, isoelectric point and electrophoresis. Preparation of $\alpha$ -amino acids. Structure and nomenclature of peptides and proteins. Classification of proteins  |
|       | 4th  | 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.  |
|       |      |   |
| June  | Ist  | 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-ethylene complexes, mononuclear carbonyls and the nature of bonding in metal carbonyls.   |
|       | 2nd  | 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  |
|       | 3rd  | Revisions and class test  |
|       | 4th  | Revisions and class test  |

# Lesson Plan

Subject: Data Communication and Networking

Name Of Faculty : Smt Sophia

BCA 5<sup>th</sup> em BCA-303

## Week 1

**Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks; Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies;**

## Week 2

**Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services; Network Applications and Application Protocols; Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model, Web Based Model,**

## Week 3

**Network Architecture and the OSI Reference Model, TCP/IP reference model.**

## Week 4

**Example Networks: The Internet, X.25, Frame Relay, ATM.**

## Week 5

**Analog and Digital Communications Concepts: Concept of data, signal, channel, bit-rate, maximum data-rate of channel, Representing Data as Analog Signals, Representing Data as Digital Signals, Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission, data encoding techniques,**

## Week 6

**Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dialup Networking; Analog Modem Concepts; DSL Service.**

## Week 7

**Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; 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 LANs; Bluetooth;**

## Week 8

**Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways.**

## Week 9

**Network Layer and Routing Concepts: Virtual Circuits and Datagram's;**

## Week 10

**Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing; Congestion Control Algorithms; Internetworking;**

## Week 11

**Network Security Issues: Security threats; Encryption Methods; Authentication; Symmetric – Key Algorithms; Public-Key Algorithms.**

## Week 12 and 13

**Revision of Important Topic and solving of Numerical Problem in OS**



# Lesson Plan

Subject: Data Structure-I

Name Of Faculty : Smt Sophia

BCA 3<sup>rd</sup> Sem BCA-202

## **Week 1**

Introduction: Elementary data organization, Data Structure definition, Data type vs. data structure, Categories of data structures.

## **Week 2**

Data structure operations, Applications of data structures, Algorithms complexity and time-space tradeoff.

## **Week 3**

Big-O notation. Strings: Introduction, Storing strings, String operations, Pattern matching algorithms.

## **Week 4**

Arrays: Introduction, Linear arrays, Representation of linear array in memory, address calculations, Traversal, Insertions, Deletion in an array.

## **Week 5**

Multidimensional arrays, Parallel arrays, Sparse arrays. Linked List: Introduction, Array vs. linked list, Representation of linked lists in memory.

## **Week 6**

Traversal, Insertion, Deletion, Searching in a linked list, Header linked list, Circular linked list, Two-way linked list, Threaded lists, Garbage collection, Applications of linked lists.

## **Week 7**

Stack: Introduction, Array and linked representation of stacks, Operations on stacks, Applications of stacks.

## **Week 8**

Applications of stacks: Polish notation, Recursion. Queues: Introduction, Array and linked representation of queues.

## **Week 9**

Operations on queues, Deques, Priority Queues, Applications of queues.

## **Week 10**

Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks.

## **Week 11**

Graph: Introduction, Graph theory terminology, Sequential and linked representation of graphs.

## **Week 12**

**Revision of Important Topic.**



# Lesson Plan

Subject: Computer Graphics

Name Of Faculty : Smt Sophia

BCA 5<sup>th</sup> Sem BCA-302

| Week         | Topic covered  |
|--------------|--|
| Week 1       | Introduction to content of paper and its application. Introduction to computer and its various components. Graphics Primitives: Introduction to computer graphics, Basics of Graphics systems, Application areas of Computer Graphics. |
| Week 2       | 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.                 |
| Week 3       | Mid-point circle and ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm, boundary fill and floodfill algorithms  |
| Week 4       | 2-D Geometrical Transforms: Translation, scaling, rotation, reflection and shear transformations, matrix representations and homogeneous coordinates.  |
| Week 5       | Composite transforms, transformations between coordinate systems. 2-D Viewing: The viewing pipeline, viewing coordinate reference frame.   |
| Week 6       | Sutherland –Hodgeman polygon clipping algorithm.<br>3-D Object Representation: Polygon surfaces, Quadric surfaces, spline representation, Hermite curve.   |
| Week 7       | Bezier curve and B-Spline curves, Bezier and B-Spline surfaces. Basic illumination models, polygon-rendering methods.  |
| Week 8       | 3-D Geometric Transformations: Translation, rotation.  |
| Week 9       | Scaling, reflection and shear transformations, composite transformations.  |
| Week 10      | 3-D Viewing: Viewing pipeline, viewing coordinates, view volume and general projection transforms and clipping.  |
| Week 11 & 12 | Revision of Important Topics.  |

# Lesson Plan

Subject: Logical Organisation-I

Name Of Faculty : Smt Sophia

BCA 1<sup>st</sup> Sem BCA-104

## **Week 1**

Information Representation: Number Systems, Binary Arithmetic, Fixed-point and Floating point representation of numbers.

## **Week 2**

BCD Codes, Error detecting and correcting codes, Character Representation.

## **Week 3**

Character Representation – ASCII, EBCDIC, Unicode.

## **Week 4**

Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions.

## **Week 5**

Boolean Functions and Truth Tables, Canonical and Standard forms of Boolean functions.

## **Week 6**

Simplification of Boolean Functions – Venn Diagram, Karnaugh Maps.

## **Week 7**

Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR.

## **Week 8**

Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT and OR-AND-INVERT implementations of digital circuits.

## **Week 9**

Combinational Logic – Characteristics, Design Procedures, analysis procedures, Multilevel NAND and NOR circuits.

## **Week 10**

Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor, Encoders, Decoders.

## **Week 11**

Multiplexers, Demultiplexers, Comparators, Code Converters, BCD to Seven-Segment Decoder.

## **Week 12**

**Revision of Important Topic.**

B.SC (2<sup>nd</sup> Year) 4<sup>th</sup> Sem. Hindi (Dinesh kumar)2019-2020

Lesson Plan

- 1 जनवरी 2020- हिन्दी गद्य की सामान्य परिचय।
- 6 जनवरी से 8 जनवरी- संस्मरण विधा में महादेवी वर्मा का स्थान
- 13 जनवरी से 15 जनवरी- निराला काई संस्मरण का पठन पाठ्य एवं प्रश्न।
- 20 जनवरी से 22 जनवरी- प्रेमचन्द " " " " " " " " " " " "
- 27 से 29 जनवरी- जयशंकर प्रसाद संस्मरण का पठन पाठ्य एवं प्रश्न
- 3 फरवरी से 5 फरवरी- सुमित्रानन्द पंत " " " " " " " " " " " "
- 10 फरवरी से 12 फरवरी- सुभद्रा पाठ पर विचार- विमर्श प्रश्न
- 17 फरवरी से 19 फरवरी- प्रणाम पाठ
- 24 फरवरी से 26 फरवरी -पुण्य स्मरण पाठ
- 2 मार्च से 4 मार्च- राजेन्द्र बाबू अध्याय पठन /पाठ्य/प्रश्न
- 16 मार्च से 18 मार्च- संत राजर्षि " " " " " " " " " " " "
- 23 मार्च से 25 मार्च - पत्रों का सामान्य परिचय।
- 30 मार्च से 1 अप्रैल -सरकारी /अर्धसरकारी पत्रों का विवेचन-विक्षेपण
- 6 अप्रैल से 8 अप्रैल - तार लेखन एवं वैज्ञानिक शब्दावली पर चर्चा।
- 13 अप्रैल से 15 अप्रैल- निबन्ध लेखन पर चर्चा।
- 20 अप्रैल से 22 अप्रैल- निर्धारित निबन्धों पर कक्षा में विचार-विमर्श।
- 27 अप्रैल से 29 अप्रैल- समस्त पाठ्यक्रम पर पुन विचार : परीक्षा दृष्टि से

**First Test + Assignment**

**Second Test + Assignment**

Hindi Dept. (2020-2021)

हिंदी विभाग  
पाठ-योजना

सत्र-202

B. A. II<sup>nd</sup> Year

15 सितम्बर से 19 सितम्बर -

हिंदी साहित्य का सामान्य-परिचय  
(रीतिकाल की पूर्व-पीठिका)

B.A.II

21 सितम्बर से 26 सितम्बर -

रीतिकालीन साहित्य की सामान्य--  
रीति शब्द का अर्थ /

Total

Total

28 सितम्बर से 3 अक्टूबर -

रीतिकाल की परिस्थितियाँ /

5 अक्टूबर से 10 अक्टूबर -

रीतिकाल का नामकरण /

B.A.II

Total

Total

12 अक्टूबर से 16 अक्टूबर -

रीतिकाल के गुण/दोष उपलब्धियाँ /

19 अक्टूबर से 24 अक्टूबर -

अच्युतचारासिंह उपाध्याय 'हरिऔध'  
परिचय एवं उपाख्या /

B.A.II

Total

26 अक्टूबर से 30 अक्टूबर -

अंतिम 27 की व्याख्या व उससे संबंध

2 नवम्बर से 7 नवम्बर -

मैथिलीशरण गुप्त का साहित्यिक पं-  
वर्ष व भारत-भारती कविता व

9 नवम्बर से 12 नवम्बर -

'संदेह' यहाँ नहीं मैं स्वर्ग का लाल  
व्याख्या व तीनों कविताओं के प्र-  
संग

16 नवम्बर से 21 नवम्बर -

जयशंकर प्रसाद का साहित्यिक-पं-  
वर्ष



- 5 सितम्बर से 19 सितम्बर :- हिन्दी साहित्य इतिहास का सामान्य-परिचय  
(आद्युगिक काल की पूर्व-जीतिका)
- 21 सितम्बर से 26 सितम्बर :- आद्युगिक काल की परिस्थितियाँ एवं चामकरण  
पर विचार।
- 2 सितम्बर से 3 अक्टूबर :- आद्युगिक काल की सामान्य उपलब्धियाँ एवं स्वर्णयुग  
के रूप में भक्तिकाल से तुलना।
- 5 अक्टूबर से 10 अक्टूबर :- भारतेन्दुकालीन साहित्य का परिचय एवं भारतेन्दु का रचना
- 12 अक्टूबर से 24 अक्टूबर :- द्विवेदी कालीन साहित्य का परिचय एवं मैचिरीशरण गुप्त  
का रचना।
- 26 अक्टूबर से 30 अक्टूबर :- द्विवेदी कालीन साहित्य की समग्र विशेषताएँ।
- 3 नवम्बर से 7 नवम्बर :- दश्यावाद का सामान्य-परिचय एवं प्रमुख कवियों पर  
विचार क्या दश्यावाद को आद्युगिक युग का स्वर्णकाल  
कहा जा सकता है क्यों?
- 9 नवम्बर से 12 नवम्बर :- दश्यावाद की विशेषताएँ।
- 16 नवम्बर से 21 नवम्बर :- प्रगतिवाद का सामान्य-परिचय एवं विशेषताएँ।
- 23 नवम्बर से 28 नवम्बर :- प्रयोगवाद अथवा नई कविता का सामान्य-परिचय  
एवं विशेषताएँ।
- 30 नवम्बर से 5 दिसम्बर :- समकालीन काव्य का सामान्य-परिचय एवं विशेषताएँ  
(काव्य-पुस्तक के संदर्भ में विशेषण)
- 7 दिसम्बर से 12 दिसम्बर :- अज्ञेय का साहित्यिक जीवन एवं रचना का परिचय-परि

- 1 नवंबर से 28 नवंबर - 'आँसू' कविता की व्याख्या व दो-  
के प्रश्न-उत्तर पर-चर्चा।
- 30 नवंबर से 5 दिसम्बर - 'सूर्यकांत त्रिपाठी 'निराला'' का साहित्यिक  
विद्या कविता व 'बादल राग' का
- 7 दिसम्बर से 12 दिसम्बर - जागों फिर एक बार व तौड़ती प  
की व्याख्या व दोनों कविताओं व
- 14 दिसम्बर से 19 दिसम्बर - महादेवी का साहित्यिक - परिच  
माँ क्या अब देखूँ, कौन तुम  
कविता की व्याख्या।
- 21 दिसम्बर से 26 दिसम्बर - 'दुख की बदली', वे मुस्कानें फूल  
की व्याख्या व रंगी कविताओं
- 28 दिसम्बर से 2 जनवरी - 'रामधारी सिंह दिनकर' का साहित्यिक  
कुसुम कविता की व्याख्या व प्र
- 4 जनवरी से 9 जनवरी - 'भारतभूषण अग्रवाल' का साहित्यिक  
एवं आने वालों से एक सवाल व  
और फूल के बोल कविता की  
प्रश्न-उत्तर।
- 11 जनवरी से 16 जनवरी - रीतिकाल की विशेषताएँ, रीतिक

- 5 जनवरी से 30 जनवरी - कंप्यूटर : स्वरूप और महत्व ।
- 1 फरवरी से 6 फरवरी - ई-मेल : प्रेषण - ग्रहण ।
- 8 फरवरी से 13 फरवरी - इंटरनेट : स्वरूप और उपयोगिता ।
- 15 फरवरी से 20 फरवरी - मशीनी अनुवाद, अनुवाद : परिभाषा  
स्वरूप ।
- 22 फरवरी से 27 फरवरी - पाठ्यक्रम पर पुनः विचार सम्मेलन  
समाधान ।



# B, A I

11 जनवरी से 16 जनवरी

!→

रसखान का साहित्यिक परिचय एवं संकलित काव्य का पठन-पाठन।

18 जनवरी से 23 जनवरी

!→

बिहारी का साहित्यिक परिचय एवं संकलित काव्य का पठन-पाठन।

25 जनवरी से 30 जनवरी

!→

धनानन्द का साहित्यिक परिचय एवं संकलित काव्य का पठन-पाठन।

01 फरवरी से 06 फरवरी

!→

काव्यशास्त्र की परिभाषा, स्वरूप एवं तत्त्वों की विवेचना।

\* मासिक परीक्षा एवं Assignment \*

08 फरवरी से 13 फरवरी

!→

शब्द शक्ति की परिभाषा, अर्थ एवं प्रकार। काव्य गुण की परिभाषा, अर्थ एवं प्रकार।

15 फरवरी से 20 फरवरी

!→

अलंकार की परिभाषा, अर्थ, एवं काव्य में अलंकारों का महत्त्व और पाठ्यक्रम में संकलित अलंकारों का विवेचना।

23 फरवरी से 27 फरवरी

!→

दृष्टशास्त्र की अर्थ एवं विभिन्न रसों का विवेचना।

\* मासिक परीक्षा एवं Assignment \*

## B. A 3rd Year

- दिसम्बर से 19 दिसम्बर - उद्देश्य जी की श्रेष्ठ-चार कविताओं का पठन-पाठन एवं प्रश्नोत्तर पर विचार-विमर्श।
- 21 दिसम्बर से 26 दिसम्बर - कवि धर्मवीर भारती का साहित्यिक-परिचय एवं उनकी चार कविताओं का पठन-पाठन।
- 28 दिसम्बर से 2 जनवरी - कवि धर्मवीर भारती की चार कविताओं का पठन-पाठन एवं प्रश्नोत्तर पर चर्चा।
- 4 जनवरी से 9 जनवरी :- कवि नरेश मेहता का साहित्यिक परिचय एवं कविताओं का पठन-पाठन एवं प्रश्नोत्तर पर चर्चा।
- 11 जनवरी से 16 जनवरी - कवि नागार्जुन का साहित्यिक-परिचय एवं कविताओं का पठन-पाठन एवं प्रश्नोत्तर।
- 18 जनवरी से 23 जनवरी - कवि रघुवीर सहाय का साहित्यिक परिचय एवं उनकी चार कविताओं का पठन-पाठन।
- 25 जनवरी से 30 जनवरी - कवि रघुवीर सहाय की श्रेष्ठ कविताओं का पठन-पाठन एवं प्रश्नोत्तर।
- 1 फरवरी से 6 फरवरी - कवि कुंवर आराधना का साहित्यिक-परिचय एवं उनकी कविताओं का पठन-पाठन एवं प्रश्नोत्तर पर चर्चा।
- 8 फरवरी से 13 फरवरी - कवि लीलाधर जगूड़ी का साहित्यिक-परिचय एवं संकलित कविताओं का पठन-पाठन एवं प्रश्नोत्तर पर चर्चा।
- 15 फरवरी से 20 फरवरी - पत्र-लेखन का सामान्य-परिचय एवं विभिन्न गैदों का अध्ययन एवं पत्र-लेखन की परिभाषा एवं चर्चा अथवा पाठ्य-पुस्तक में दी गई कविताओं का पठन-पाठन।

8 नवम्बर से 21 नवम्बर :-> हिन्दी साहित्य इतिहास का सामान्य परिचय एवं काल विभाजन पर विभिन्न विद्वानों का मत एवं साहित्य इतिहास लेखन परम्परा।

22 नवम्बर से 28 नवम्बर :-> आदिकाल के नामकरण की समस्या एवं आदिकाल की विभिन्न परिस्थितियाँ।

30 नवम्बर से 05 दिसंबर :-> आदिकालीन साहित्य की सामान्य प्रवृत्तियाँ।

07 दिसंबर से 12 दिसंबर :-> शसौ काव्य परम्परा का संक्षिप्त परिचय एवं पृथ्वीराज शसौ की प्रागणिकता एवं अप्रागणिकता।

\* मासिक परीक्षा एवं Assignment \*

14 दिसंबर से 19 दिसंबर :-> मध्यकालीन काव्य कुंज पाठ्य पुस्तक के प्रथम कवि कबीर का साहित्यिक परिचय एवं संकलित साहित्यों का पढ़न-पाठन।

21 दिसंबर से 26 दिसंबर :-> शूरदास का साहित्यिक परिचय एवं संकलित पदों का पढ़न-पाठन।

28 दिसंबर से 02 जनवरी :-> तुलसीदास का साहित्यिक परिचय एवं संकलित काव्य का पढ़न-पाठन।

04 जनवरी से 09 जनवरी :-> मीराबाई का साहित्यिक परिचय एवं संकलित काव्य का पढ़न-पाठन।

\* मासिक परीक्षा एवं Assignment \*

## Lesson Plan session 2021-22(Even Semester)

Class BCA-2<sup>nd</sup> sem

Teacher: -Suresh Kumar

Subject : C programming

|                                      |   |
|--------------------------------------|---|
| <b>March</b>                         |   |
|                                      |   |
| Week 4                               | Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords,   |
| Week 5                               | Data types, Constants and Variables, Assignment statement,  |
|                                      |   |
| <b>April</b><br>Week 1 <sup>st</sup> | Symbolic constant, Structure of a C Program, printf(), scanf() Functions, Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators, |
| Week 2 <sup>nd</sup>                 | Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity. UNIT-II Decision making & branching:  |
| Week 3 <sup>rd</sup>                 | Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.  |
| Week 4 <sup>th</sup>                 | Decision making & looping: For, while, and do-while loop, jumps in loops, break,  |
| <b>May</b><br>Week 1 <sup>st</sup>   | continue statement, Nested loops. UNIT-III Functions: Standard Mathematical functions, Input/output:  |
| Week 2 <sup>nd</sup>                 | Unformatted & formatted I/O function in C, Input functions viz. getch(), getche(), getchar(), gets(), output functions viz., putchar(), puts(), string manipulation functions.  |
| Week 3 <sup>rd</sup>                 | User defined functions: Introduction/Definition, prototype, Local and global variables, passing parameters, recursion. UNIT-IV Arrays, strings and pointers: Definition,  |
| Week 4 <sup>th</sup>                 | types, initialization, processing an array, passing arrays to functions, Array of Strings. String constant and variables,   |
| <b>June</b><br>Week 1 <sup>st</sup>  | Declaration and initialization of string, Input/output of string data,  |
| Week 2 <sup>nd</sup>                 | Introduction to pointers. Storage classes in C: auto, extern, register and static storage class,  |
| Week 3 <sup>rd</sup>                 | their scope, storage, & lifetime. Algorithm development, Flowcharting and Development of efficient program in C.  |
| Week 4 <sup>th</sup>                 | Test  |

## Lesson Plan session 2021-22(Even Semester)

**Class BCA -4<sup>th</sup> Sem**

**Teacher: - SURESH**

**KUMAR**

**Subject : Object Oriented Programming Using C++**

|                                      |   |
|--------------------------------------|---|
| <b>March</b>                         | Object Oriented Programming Using C++   |
| Week 4                               | UNIT-I Object Oriented Programming Concepts : Procedural Language and Object Oriented approach                            |
| Week 5                               | Characteristics of OOP, user defined types, polymorphism and encapsulation. Getting started with C++: syntax, data types, |
| <b>April</b><br>Week 1 <sup>st</sup> | UNIT-II Abstracting Mechanism: classes, private and public, Constructor and Destructor ,                                  |
| Week 2 <sup>nd</sup>                 | member function, static members, references; Memory Management: new, delete,  |
| Week 3 <sup>rd</sup>                 | object copying, copy constructor, assignment operator, this input/output  |
| Week 4 <sup>th</sup>                 | UNIT-III Inheritance and Polymorphism:  |
| <b>May</b><br>Week 1 <sup>st</sup>   | Derived Class and Base Class, Different types of Inheritance, Overriding member function,                                 |
| Week 2 <sup>nd</sup>                 | Abstract Class, Public and Private Inheritance, Ambiguity in Multiple inheritance ,                                       |
| Week 3 <sup>rd</sup>                 | Virtual function, Friend function, Static function.   |
| Week 4 <sup>th</sup>                 | UNIT-IV Exception Handling: Exception and derived class,  |
| <b>June</b><br>Week 1 <sup>st</sup>  | function exception declaration, unexpected exception, exception when handling exception,                                  |
| Week 2 <sup>nd</sup>                 | resource capture and release. Template and Standard Template Library: Template classes, declaration, template functions,  |
| Week 3 <sup>rd</sup>                 | namespace, string, iterators, hashes, iostreams and other types.  |
| Week 4 <sup>th</sup>                 | Test  |



## Lesson Plan session 2021-22(Even Semester)

Class BCA -6<sup>th</sup> Sem

Teacher: -SURESH

KUMAR Subject: Dot Net

|                                      |   |
|--------------------------------------|---|
| <b>March</b>                         | Dot Net   |
| Week 4                               | UNIT – I The Framework of .Net: Building blocks of .Net Platform (the CLR, CTS and CLS),                                    |
| Week 5                               | Features of .Net, Deploying the .Net Runtime, Architecture of .Net platform   |
| <b>April</b><br>Week 1 <sup>st</sup> | Introduction to namespaces & type distinction. Types & Object in .Net, the evolution of Web development .                   |
| Week 2 <sup>nd</sup>                 | UNIT – II Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes .                   |
| Week 3 <sup>rd</sup>                 | Introduction to C#: Characteristics of C#, Data types: Value types, reference types, default value                          |
| Week 4 <sup>th</sup>                 | constants, variables, scope of variables, boxing and unboxing.  |
| <b>May</b><br>Week 1 <sup>st</sup>   | UNIT – III Operators and expressions: Arithmetic, relational, logical, bitwise, special operators, evolution of expressions |
| Week 2 <sup>nd</sup>                 | operator precedence & associativity, Control constructs in C#: Decision making, loops, Classes & methods: Class,            |
| Week 3 <sup>rd</sup>                 | methods, constructors, destructors,   |
| Week 4 <sup>th</sup>                 | , overloading of operators & functions. UNIT – IV Inheritance & polymorphism:   |
| <b>June</b><br>Week 1 <sup>st</sup>  | visibility control, overriding, abstract class & methods, sealed classes & methods,   |
| Week 2 <sup>nd</sup>                 | interfaces. Advanced features of C#: Exception handling & error handling,   |
| Week 3 <sup>rd</sup>                 | automatic memory management, Input and output (Directories, Files, and streams)   |
| Week 4 <sup>th</sup>                 | Test  |

## Lesson Plan session 2021-22(Even Semester)

Class BCA -6<sup>th</sup> Sem

Teacher: - SURESH KUMAR

Subject : Object Technologies & Programming using Java

|                                      |  |
|--------------------------------------|--|
| <b>March</b>                         | Object Technologies & Programming using Java   |
| Week 4                               | UNIT-I Object Oriented Methodology-1: Paradigms of Programming Languages,  |
| Week 5                               | Evolution of OO Methodology, Basic Concepts of OO Approach, Comparison of Object Oriented and Procedure Oriented Approaches, Benefits of OOPs,   |
| <b>April</b><br>Week 1 <sup>st</sup> | Introduction to Common OO Language, Applications of OOPs . Object Oriented Methodology-2: Classes and Objects, Abstraction and Encapsulation, Inheritance,   |
| Week 2 <sup>nd</sup>                 | Method Overriding and Polymorphism. UNIT-II Java Language Basics: Introduction To Java, Basic Features, Java Virtual Machine Concepts,   |
| Week 3 <sup>rd</sup>                 | Primitive Data Type And Variables, Java Operators, Expressions, Statements and Arrays. Object Oriented Concepts: Class and Objects-- Class Fundamentals, Creating objects ,  |
| Week 4 <sup>th</sup>                 | Assigning object reference variables; Introducing Methods, Static methods, Constructors , Overloading constructors; This Keyword; Using Objects as Parameters,   |
| <b>May</b><br>Week 1 <sup>st</sup>   | Argument passing, Returning objects , Method overloading, Garbage Collection, The Finalize ( ) Method. Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding,  |
| Week 2 <sup>nd</sup>                 | Abstract Classes, Polymorphism, Final Keyword. UNIT-III Packages : Defining Package,   |
| Week 3 <sup>rd</sup>                 | CLASSPATH, Package naming, Accessibility of Packages , using Package Members. Interfaces: Implementing Interfaces, Interface and Abstract Classes, Extends and Implements together   |
| Week 4 <sup>th</sup>                 | Exceptions Handling : Exception , Handling of Exception, Using try-catch , Catching Multiple Exceptions , Using finally clause ,   |
| <b>June</b><br>Week 1 <sup>st</sup>  | . Types of Exceptions, Throwing Exceptions, Writing Exception Subclasses. UNIT-IV Multithreading : Introduction , The Main Thread, Java Thread Model, Thread Priorities,   |
| Week 2 <sup>nd</sup>                 | Synchronization in Java, Inter thread Communication. I/O in Java : I/O Basics, Streams and Stream Classes ,The Predefined Streams, Reading from, and Writing to, Console, Reading and Writing Files  |
| Week 3 <sup>rd</sup>                 | , The Transient and Volatile Modifiers , Using Instance of Native Methods. Strings and Characters : Fundamentals of Characters and Strings, The String Class , String Operations , Data Conversion using Value Of ( ) Methods , String Buffer Class and Methods. |
| Week 4 <sup>th</sup>                 | Test   |





**LESSON PLAN**  
**(March 21, 2022 to June 30, 2022)**

**Name of Assistant Professor:- Ms. Sudesh Kumari**  
**Class & Section:- BA/B.Sc II Mathematics (4<sup>th</sup> Semester)**  
**Paper:- Special Functions & Integral Transforms (2<sup>nd</sup> Paper )**  
**Subject:- Lesson Plan (March 21, 2022 to June 30, 2022)**

| <b>March</b> |  |
|--------------|--|
| Week 4       | <b>Laplace Transforms</b><br>Definition, Results, Laplace Transformation of some Elementary Functions<br>Linear Property of Laplace Transformation, Examples on Laplace Transformation   |
| Week 5       | First Shifting Property-Examples, Change of Scale Property, Piece-Wise Continuity of a Function in an Interval, Second Shifting Property –Examples<br>*Test and Assignment   |
| <b>April</b> |  |
| Week 1       | Laplace Transformation of Derivatives, Effect of Multiplication of $f(t)$ by $t^n$ in finding Laplace Transform, Effect of Division of $f(t)$ by $t$ in finding Laplace Transform  |
| Week 2       | Convolution Theorem-Examples, Laplace Transform of Periodic Function, Laplace Transform of Integrals—Examples  |
| Week 3       | <b>Inverse Laplace Transforms</b><br>Inverse Laplace Transforms-Examples, Inverse Laplace Transform of Derivatives-Examples, Inverse Laplace Transform of Integrals-Examples,<br>Solution of Differential Equations by Laplace Transformation-Examples,  |
| Week 4       | <b>Infinite Fourier Transform</b><br>Infinite Fourier Transform, Fourier sine Transform, Fourier Cosine Transform, Properties of Fourier Transforms, Examples, Change of Scale Properties, Shifting Property<br>*Test and Assignment   |
| <b>May</b>   |  |
| Week 1       | Modulation Property, Examples, Convolution Theorem, Fourier Transform of the Derivative, Relation between Fourier and Laplace Transform<br>Parseval's Identities, Examples, Finite Fourier sine and cosine Transform-Examples, Solution of Differential Equation by Fourier Transforms-Examples  |
| Week 2       | <b>Power Series</b><br>Power Series, Analytic Functions, Ordinary and Singular Points of Differential Equations, Series Solutions of Differential Equations<br><b>Bessel's Equation</b><br>Bessel's Equation and Bessel's Function, Beta and Gamma Function, Bessel's Equation and its Solution, Bessel's Function, Deduction of Bessel's Function in the form of series |
| Week 3       | Recurrence Relations for Bessel's Function, Orthogonality of Bessel's Function, Generating Function for $J_n(x)$ , Representation of $J_n(x)$ in Integral  |
| Week 4       | *Test and Assignment   |
| <b>June</b>  |  |
| Week 1       | <b>Legendre's Equation</b><br>Solution of Legendre's Equation<br>Legendre's Polynomial, Rodrigue's Formula<br>Derivation of Legendre's Polynomial from Rodrigue's Formula  |
| Week 2       | Generating Function for $P_n(x)$ , Examples on Legendre's Polynomial, Recurrence Relations, Examples on Orthogonality of Legendre Polynomial,  |
| Week 3       | <b>Hermite's Equation</b><br>Generating Function for Hermite's Polynomial, Recurrence Relations<br>Examples on Recurrence Relations, Examples on Hermite's Polynomial,   |
| Week 4       | <b>*Revision, Test and Assignments</b>   |

**LESSON PLAN**  
**(March 21, 2022 to June 30, 2022)**

Name of Assistant/Associate Professor:- **Mr. N.N. Yadav**  
 Class & Section:- **BA/B.Sc III Mathematics (6<sup>th</sup> Semester)**  
 Paper:- **Real and Complex Analysis (1<sup>st</sup> paper )**  
 Subject:- **Lesson Plan (March 21, 2022 to June 30, 2022)**

|              |  |
|--------------|--|
| <b>March</b> |  |
| Week 4       | Jacobians, Beta and Gama functions.  |
| Week 5       | Double and Triple integrals, Dirichlets integrals, Test  |
| <b>April</b> |  |
| Week 1       | Change of order of integration in double integrals, Test and Revision of Jacobians and Double-Triple Integral        |
| Week 2       | Fourier's series: Fourier expansion of piecewise monotonic functions   |
| Week 3       | Properties of Fourier Co-efficients, Dirichlet's conditions,   |
| Week 4       | Parseval's identity for Fourier series, Revision of Fourier<br>*Test and Assignment                                  |
| <b>May</b>   |  |
| Week 1       | Fourier series for even and odd functions, Half range series, Change of Intervals, Extended Complex Plane            |
| Week 2       | Stereographic projection of complex numbers, Continuity of complex functions, Differentiability of complex functions |
| Week 3       | Analytic functions, Cauchy-Riemann Equations, Harmonic functions   |
| Week 4       | *Test and Assignment   |
| <b>June</b>  |  |
| Week 1       | Conformal Mappings, Mobius transformations, Assignments.   |
| Week 2       | Fixed pints, Cross ratio and Inverse Points, Test and assignments.   |
| Week 3       | Critical Mappings  |
| Week 4       | <b>*Revision, Test and Assignments</b>   |

**LESSON PLAN**  
**(March 21, 2022 to June 30, 2022)**

Name of Assistant/Associate Professor:- **Mr. N.N. Yadavi**  
 Class & Section:- **BA/B.Sc I Mathematics (2<sup>nd</sup> Semester)**  
 Paper:- **Vector Calculus (3<sup>rd</sup> Paper )**  
 Subject:- **Lesson Plan (March 21, 2022 to June 30, 2022)**

| <b>March</b> |  |
|--------------|--|
| Week 4       | <b>Vector Product</b><br>Definition of Vector, Results on Vectors, Scalar and Vector Product of three Vectors, Product of four Vectors   |
| Week 5       | Reciprocal Vectors, Scalar Valued Point Functions, Vector Valued Point Functions<br>*Test and Assignment   |
| <b>April</b> |  |
| Week 1       | <b>Derivative of Vectors</b><br>Vector Differentiation, Derivative along a Curve –Examples   |
| Week 2       | Directional Derivatives —Examples  |
| Week 3       | <b>Gradient</b><br>Gradient of a Scalar Point Function, Geometrical Interpretation of Gradient - Examples,   |
| Week 4       | <b>Divergence and curl</b><br>Divergence and Curl of Vector Point Function, Characters of Divergence and Curl as Point Function<br>Gradient, Divergence and Curl of Sums and Product and their Related Vector Identities. Laplacian Operator<br>*Test and Assignment |
| <b>May</b>   |  |
| Week 1       | Orthogonal Curvilinear Coordinates Conditions for Orthogonality Fundamental triad of Mutually Orthogonal Unit Vectors  |
| Week 2       | Gradient, Divergence, Curl and Laplacian Operators in terms of Orthogonal Curvilinear Coordinates –Examples  |
| Week 3       | Cylindrical Co-ordinates and Spherical Co-ordinates-Examples   |
| Week 4       | *Test and Assignment   |
| <b>June</b>  |  |
| Week 1       | <b>Vector Integration</b><br>Line Integral, Surface Integral-Examples  |
| Week 2       | Vector Integration<br>Volume Integral-Examples   |
| Week 3       | Theorems of Gauss, Green & Stokes and Problems based on these Theorms.   |
| Week 4       | <b>*Revision, Test and Assignments</b>   |

**LESSON PLAN**  
**(March 21, 2022 to June 30, 2022)**

Name of Assistant/Associate Professor:- **Mr. N.N. Yadavi**  
 Class & Section:- **B.Sc. Hons. Mathematics (2<sup>nd</sup> Semester)**  
 Paper:- **Vector Calculus (3<sup>rd</sup> Paper )**  
 Subject:- **Lesson Plan (March 21, 2022 to June 30, 2022)**

| <b>March</b> |  |
|--------------|--|
| Week 4       | <b>Vector Product</b><br>Definition of Vector, Results on Vectors, Scalar and Vector Product of three Vectors, Product of four Vectors   |
| Week 5       | Reciprocal Vectors, Scalar Valued Point Functions, Vector Valued Point Functions<br>*Test and Assignment   |
| <b>April</b> |  |
| Week 1       | <b>Derivative of Vectors</b><br>Vector Differentiation, Derivative along a Curve –Examples   |
| Week 2       | Directional Derivatives —Examples  |
| Week 3       | <b>Gradient</b><br>Gradient of a Scalar Point Function, Geometrical Interpretation of Gradient - Examples,   |
| Week 4       | <b>Divergence and curl</b><br>Divergence and Curl of Vector Point Function, Characters of Divergence and Curl as Point Function<br>Gradient, Divergence and Curl of Sums and Product and their Related Vector Identities. Laplacian Operator<br>*Test and Assignment |
| <b>May</b>   |  |
| Week 1       | Orthogonal Curvilinear Coordinates Conditions for Orthogonality Fundamental triad of Mutually Orthogonal Unit Vectors  |
| Week 2       | Gradient, Divergence, Curl and Laplacian Operators in terms of Orthogonal Curvilinear Coordinates –Examples  |
| Week 3       | Cylindrical Co-ordinates and Spherical Co-ordinates-Examples   |
| Week 4       | *Test and Assignment   |
| <b>June</b>  |  |
| Week 1       | <b>Vector Integration</b><br>Line Integral, Surface Integral-Examples  |
| Week 2       | Vector Integration<br>Volume Integral-Examples   |
| Week 3       | Theorems of Gauss, Green & Stokes and Problems based on these Theorms.   |
| Week 4       | <b>*Revision, Test and Assignments</b>   |

**LESSON PLAN**  
**(March 21, 2022 to June 30, 2022)**


**Name of Assistant Professor:- Ms. Sudesh Kumari**  
**Class & Section:- B.Sc. Hons. Mathematics (2<sup>nd</sup> Semester)**  
**Paper:- Discrete Mathematics-II (4<sup>th</sup> Paper )**  
**Subject:- Lesson Plan (March 21, 2022 to June 30, 2022)**

|              |   |
|--------------|---|
| <b>March</b> |   |
| Week 4       | Lattices and their properties with examples   |
| Week 5       | Lattice as algebraic system-Examples, Bounded lattice –Examples                                     |
| <b>April</b> |   |
| Week 1       | Complement and distributive lattices –Examples  |
| Week 2       | Boolean Algebra and Properties -definition and examples   |
| Week 3       | Duality, Distributive and Complemented with Examples, Design and Implementation of Digital Networks |
| Week 4       | Switching Circuits, Karnaugh Map-Examples<br>*Test and Assignment                                   |
| <b>May</b>   |   |
| Week 1       | Graph, definition, Exemplary types of Graphs with Examples  |
| Week 2       | Paths and Circuits- Eulerian and Hermitian Circuits with Examples                                   |
| Week 3       | Seven Bridges Machine, Shortest Path, Traveling Salesman Problems. Planar Graph. Matrix of Graph    |
| Week 4       | *Test and Assignment  |
| <b>June</b>  |   |
| Week 1       | Directed Graphs, Trees, Isomorphism of Trees with Examples  |
| Week 2       | Representation of Algebraic Expressions by Binary Trees, Spanning Tree of a Graph-Examples          |
| Week 3       | Shortest Path Problem, Minimal Spanning Trees, Cut Sets, Tree Searching with Examples               |
| Week 4       | <b>*Revision, Test and Assignments</b>  |







 **GPS Map  
Camera Lite**

X852+FP7, Meham, Haryana 124112, India

Latitude  
**28.9581177°**

Longitude  
**76.3016706°**

Local 12:32:13 PM  
GMT 07:02:13 AM

Altitude 0 meters  
Tuesday, 07-06-2022





