Lesson Plan 2025-26(As per NEP 2020)

Name of the Assistant Professor: Dr. Vinti Parmar

Class: B.A MDC 3rd Sem. Subject: Problem Solving Through C

| Week | | Topics |
|------|-------|--|
| 1 | Day 1 | Basic Concepts of Programming, Algortihm & |
| | | Flowchart |
| | Day 2 | Structured Programming Concepts |
| | Day 3 | Top Down & Bottom Up Approach |
| 2 | Day 1 | Searching & Sorting |
| | Day 2 | Test |
| | Day 3 | Basics of C Language |
| 3 | Day 1 | Data Types & Operators |
| | Day 2 | Keywords & Variables |
| | Day 3 | Input/ Output Statements |
| 4 | Day 1 | Type Conversion & Type Casting |
| | Day 2 | Doubt Class |
| | Day 3 | Test |
| 5 | Day 1 | Basics of Decision Statements |
| | Day 2 | if and if else statements |
| | Day 3 | Nested if else statement |
| 6 | Day 1 | If else ladder |
| | Day 2 | Switch statement |
| | Day 3 | Go to and break statement |
| 7 | Day 1 | Format Specifiers |
| | Day 2 | For loop |
| | Day 3 | While loop |
| 8 | Day 1 | Do while loop |

| | Day 2 | Exit and continue statement |
|----|-------|---|
| | Day 3 | Doubt Class |
| 9 | Day 1 | Test |
| | Day 2 | Function Basics |
| | Day 3 | Call by Value and Call by Reference |
| 10 | Day 1 | Function Signature |
| | Day 2 | Recursion |
| | Day 3 | Basics of Array |
| 11 | Day 1 | One Dimensional and Two Dimensional Array |
| | Day 2 | Array as Matrix |
| | Day 3 | Strings |
| 12 | Day 1 | Various functions on strings |
| | Day 2 | Structure and Union |
| | Day 3 | Various Input and Output Functions |
| 13 | Day 1 | Basics of File Handling |
| | Day 2 | Reading from File |
| | Day 3 | Writing from file |
| 14 | Day 1 | Standard Input / Output Text File |
| | Day 2 | Header Files |
| | Day 3 | Basics of C Graphics |
| 15 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |

Lesson Plan 2025-26(As Per NEP 2020)

Name of the Assistant Professor: Dr. Vinti Parmar

Class: B.Sc (Computer Science) 3rd Sem. Subject: Data Structure and

Algorithm

| Week | | Topics |
|------|-------|-----------------------------------|
| 1 | Day 1 | Basic Concepts of Data Structures |
| | Day 2 | Data Structure Operations |
| | Day 3 | Application of Data Structure |
| 2 | Day 1 | Types of Data Structures |
| | Day 2 | Test |
| | Day 3 | Algorithm Concepts |
| 3 | Day 1 | String concepts |
| | Day 2 | Pattern Matching Algorithm |
| | Day 3 | Arrays |
| 4 | Day 1 | Types of Array |
| | Day 2 | Doubt Class |
| | Day 3 | Test |
| 5 | Day 1 | Linked List |
| | Day 2 | Operations on Linked List |
| | Day 3 | Circular Linked List |
| 6 | Day 1 | Two Way Linked List |
| | Day 2 | Application of linked list |
| | Day 3 | Stacks |
| 7 | Day 1 | Operations on Stack |
| | Day 2 | Application of Stacks |
| | Day 3 | Reverse Polish Notaion |
| 8 | Day 1 | Recursion |
| | Day 2 | Basic concepts of Queues |

| | Day 3 | Doubt Class |
|----|-------|--------------------------------|
| 9 | Day 1 | Test |
| | Day 2 | Array Representation of Stack |
| | Day 3 | Linked representation of stack |
| 10 | Day 1 | Operations on Queues |
| | Day 2 | Deques |
| | Day 3 | Priority Queues |
| 11 | Day 1 | Application of queues |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 12 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 13 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 14 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 15 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |

Lesson Plan 2025-26 (According to Old Scheme)

Name of the Assistant Professor: Dr. Vinti Parmar

Class: B.Sc (Computer Science) 5th Sem. Subject: DBMS

| Week | | Topics |
|------|----------------|---|
| 1 | Day 1 | Basic Concepts – Data, Information, Records and files. |
| 1 | | |
| | Day 2 | Traditional file – based Systems-File Based |
| | | Approach-Limitations of File Based Approach |
| | Day 3 | Block Diagram along its components and characteristics |
| 2 | Day 1 | Database Approach-Characteristics of Database |
| | | Approach, Database Management System (DBMS), |
| | Day 2 | Components of DBMS Environment, DBMS |
| | | Functions, Advantages and Disadvantages of DBMS. |
| | Day 3 | DBMS Functions, Advantages and Disadvantages of DBMS. |
| 3 | Day 1 | Classification of Database Management System. |
| | Day 2 | Roles in the Database Environment - Data and Database |
| | | Administrator |
| | Day 3 | Centralized and Client Server architecture to DBMS |
| 4 | Day 1 | Database System Architecture – Three Levels of |
| | | Architecture, External, |
| | Day 2 | Conceptual and Internal Levels, Schemas, |
| | D 2 | m · |
| | Day 3 | Test |
| 5 | Day 1 | Mappings and Instances. Data Independence – Logical |
| | Day 2 | Data Rate and Bandwidth, Capacity, Baud Rate; |
| | Day 3 | Data Models: Records- based Data Models, |
| | Day 1 | Object-based Data Models, |
| 6 | Day 1 | Physical Data Models and Conceptual Modeling. |
| | Day 2 | Guided and Wireless Transmission Media; |
| | Day 2 | Test |
| 7 | Day 3 | Hierarchical, network and relational model |
| 7 | Day 1 Day 2 | Entity-Relationship Model – Entity Types, Entity Sets, |
| | Day 2 | Attributes and keys, |
| | Day 3 | Relationship, relationship sets, Role name & recursive |
| | Day 3 | relationship and structural constraints |
| 8 | Day 1 | Conceptual design using E-R Diagrams. |
| 0 | Duy 1 | Conceptual design doing is it biagrams. |
| | Day 2 | Relational Data Model:-Introduction, |
| | | |
| | Day 3 | Properties of Relations, Keys, Integrity Constraints over |
| | | Relations, |
| | | Views |
| 9 | Day 1 | FDDI, Wireless LANs. |
| | Day 2 | Functional Dependencies, |
| | | |
| | Day 3 | Normalizat io n:1sto 3rd Normal |
| | | Form, BCNF, |

| 10 | Day 1 | Lossless Join and Dependency preserving decomposition. |
|----|-------|--|
| | Day 2 | SQL : Types & components of SQL, Data Definition and data |
| | | types, Data definition commands, Data |
| | | manipulation commands, |
| | Day 3 | Data Control Commands Specifying Constraints(Primary |
| | | Constraint,. Foreign key, Unique, Not Null) in SQL, Schema, |
| 11 | Day 1 | Schema, Basic Queries in SQL, Insert, Delete and Update |
| | | operations. |
| | | |
| | Day 2 | Inbuilt Date, String functions. Commit, Rollback, Save points |
| | Day 3 | Views: Introduction, Advantages of creating views |
| 12 | Day 1 | Features, Destroying/ Altering table & Views. |
| | Day 2 | Assignment |
| | Day 3 | Test |
| 13 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 14 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Test |
| 15 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |

Lesson Plan 2025-26(As per NEP 2020)

Name of the Assistant Professor: Dr. Vinti Parmar

Class: B.A MDC First Sem. Subject: Fundamentals of Computer Science

| Week | | Topics |
|------|-------|---|
| 1 | Day 1 | Historical evolution of computers, |
| | Day 2 | Classification of computers, |
| | Day 2 | Classification of computers, |
| | Day 3 | Block Diagram along its components and characteristics |
| 2 | Day 1 | Usefulness of Computers. |
| | Day 2 | Human being Vs computer, Computer as a tool, |
| | Day 3 | Applications of computers. |
| 3 | Day 1 | Generations of computer |
| | Day 2 | Strengths and limitations of computer |
| | Day 3 | Types of software |
| 4 | Day 1 | <i>Input/Output Devices</i> : Keyboards, mouse, joysticks, trackballs, digitizer, |
| | Day 2 | voice-recognition, optical-recognition, scanners, terminals, point-of-sale terminals, machine-vision systems |
| | Day 3 | Test |
| 5 | Day 1 | . Hard-copy devices: Impact printers - DMPs, Daisy-wheel printers, Line-printers. |
| | Day 2 | Non-impact printers - Inkjet,Laser, Thermal, LED; Plotters. Soft-copy devices: Monitors, video-standards (VGA and SVGA). |
| | Day 3 | Memory & Mass Storage Devices: Characteristics of memory systems, types of memory, |
| 6 | Day 1 | RAM, ROM, magnetic disks - floppy disk, hard-disk; optical disks - CD, CD-I, CD-ROM; Magnetic tapes; Concepts of Virtual and Cache memory |
| | Day 2 | Software Concepts: Introduction, types of software - System & Application software |
| | Day 3 | Language translators - |

| 7 | Day 1 | Compiler, Interpreter, Assembler; |
|----|-------|---|
| | Day 2 | Operating system - Characteristics, bootstrapping, types of |
| | | operating, |
| | Day 3 | operating system as a resource manager; |
| 8 | Day 1 | BIOS; System utilities - Editor, Loader, Linker, |
| _ | | File Manager. |
| | Day 2 | Concept of GUI, GUI standards. Introduction to Algorithm & |
| | | Flowcharts, Advantages & Disadvantages. |
| | Day 3 | Introduction to networks and internet |
| 9 | Day 1 | History and working of internet |
| | Day 2 | Modes of connecting to internet |
| | Day 3 | Electronic mail introduction |
| 10 | Day 1 | Electronic mail advantages and disadvantages |
| | Day 2 | User Ids and passwords |
| | | |
| | Day 3 | Email addresses |
| | | |
| 11 | Day 1 | Message components |
| | Day 2 | Message composition |
| | Day 3 | Mailer features |
| 12 | Day 1 | Browsers and search engines |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 13 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |
| 14 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Macros |
| 15 | Day 1 | Revision and doubt Class |
| | Day 2 | Revision and doubt Class |
| | Day 3 | Revision and doubt Class |