**Lesson Plan**

**Name of the Assistant Professor**: Ravi

**Class:** B.Sc (Computer Science) 2nd Sem. **Subject:** Programming in C

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| **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 |

**Name of the Assistant Professor**: Ravi

**Class:** B.Sc (Computer Science) 4th Sem. **Subject:** Data Structure

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| **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 | Trees Basics |
| Day 3 | Traversing Binary trees |
| **12** | Day 1 | Various types of Binary Trees  |
| Day 2 | Graph Basics |
| Day 3 | Graph Theory Terminology |
| **13** | Day 1 | Sequential Representation of Graph  |
| Day 2 | Linked Representation of Graph |
| Day 3 | Types of Searching |
| **14** | Day 1 | Types of Sorting |
| Day 2 | Introduction to Files |
| Day 3 | Storage Devices |
| **15** | Day 1 | Revision and doubt Class |
| Day 2 | Revision and doubt Class |
| Day 3 | Revision and doubt Class |

**Name of the Assistant Professor**: Ravi

**Class:** B.Sc (Computer Science) 6th Sem. **Subject:** Software Engg.

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| **Week** |  | **Topics** |
| **1** | Day 1 | Basics of Software Engg. |
| Day 2 | Software characteristics |
| Day 3 | Software Processes |
| **2** | Day 1 | Software Crisis |
| Day 2 | Test |
| Day 3 | Software life cycle models |
| **3** | Day 1 | Waterfall and Prototype Models |
| Day 2 | Evolutionary and Spiral Models |
| Day 3 | Software Engineering Paradigms |
| **4** | Day 1 | Goals and Principles of software engineering. |
| Day 2 | Doubt Class |
| Day 3 | Test |
| **5** | Day 1 | Structured analysis |
| Day 2 | Object-oriented analysis and data modeling |
| Day 3 | Software requirement specification |
| **6** | Day 1 | Verification and Validation |
| Day 2 | Software requirements Analysis and Specifications |
| Day 3 | Requirement engineering |
| **7** | Day 1 | Requirements analysis using DFD |
| Day 2 | Data Dictionaries and E-R Diagram |
| Day 3 | Requirement documentation |
| **8** | Day 1 | Nature of SRS |
| Day 2 | Characteristics and organization of SRS |
| Day 3 | Doubt Class |
| **9** | Day 1 | Test |
| Day 2 | Software project management |
| Day 3 | Planning a software project, |
| **10** | Day 1 | Software cost estimation |
| Day 2 | Project scheduling |
| Day 3 | Personnel planning |
| **11** | Day 1 | Team structure Software configuration management |
| Day 2 | Software quality and quality assurance |
| Day 3 | Project monitoring |
| **12** | Day 1 | Risk management |
| Day 2 | Design and implementation of software |
| Day 3 | Software design fundamentals |
| **13** | Day 1 | Software design principles |
| Day 2 | Cohesion and Coupling |
| Day 3 | Function oriented design |
| **14** | Day 1 | Object Oriented Design |
| Day 2 | Design Verification |
| Day 3 | Monitoring and control |
| **15** | Day 1 | Revision and doubt Class |
| Day 2 | Revision and doubt Class |
| Day 3 | Revision and doubt Class |

**Name of the Assistant Professor**: Ravi

**Class:** B.Sc (Computer Science) 4th Sem. **Subject:** Data Structure

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| **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 |
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| Day 2 | Linked Representation of Graph |
| Day 3 | Types of Searching |
| **14** | Day 1 | Types of Sorting |
| Day 2 | Introduction to Files |
| Day 3 | Storage Devices |
| **15** | Day 1 | Revision and doubt Class |
| Day 2 | Revision and doubt Class |
| Day 3 | Revision and doubt Class |

**Name of the Assistant Professor**: Ravi

**Class:** B.Sc (Computer Science) 4th Sem. **Subject:** Operating System

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| **Week** |  | **Topics** |
| **1** | Day 1 | Basics of Operating Systems |
| Day 2 | Operating System Classification |
| Day 3 | Operating System Modes and System Calls |
| **2** | Day 1 | Operating System Architecture |
| Day 2 | Test |
| Day 3 | Operating System Functions |
| **3** | Day 1 | History evolution of operating systems |
| Day 2 | Real Time Systems |
| Day 3 | Distributed Systems |
| **4** | Day 1 | System Programs and System Calls |
| Day 2 | Doubt Class |
| Day 3 | Test |
| **5** | Day 1 | Process Concepts |
| Day 2 | Process States and Process Control Block  |
| Day 3 | Scheduling Criterion  |
| **6** | Day 1 | Levels of Scheduling  |
| Day 2 | Scheduling Algorithm |
| Day 3 | Deadlock Basics |
| **7** | Day 1 | Deadlock Prevention |
| Day 2 | Deadlock Avoidance |
| Day 3 | Deadlock Detection and Recovery |
| **8** | Day 1 | Critical Section Problem |
| Day 2 | Semaphore |
| Day 3 | Doubt Class |
| **9** | Day 1 | Test |
| Day 2 | Critical Section problem and their solutions |
| Day 3 | Memory Management |
| **10** | Day 1 | Paging  |
| Day 2 | Segmentation |
| Day 3 | Paging with Segmentation  |
| **11** | Day 1 | Virtual Memory |
| Day 2 | Page Replacement Algorithm |
| Day 3 | Thrashing |
| **12** | Day 1 | Disk Scheduling |
| Day 2 | Disk Management |
| Day 3 | File Access Methods |
| **13** | Day 1 | File Allocation Methods |
| Day 2 | Directory System |
| Day 3 | File System |
| **14** | Day 1 | Directory Structure |
| Day 2 | Disk Structure |
| Day 3 | File Protection Mechanism |
| **15** | Day 1 | Revision and doubt Class |
| Day 2 | Revision and doubt Class |
| Day 3 | Revision and doubt Class |