**LESSON PLAN(2022-23-Odd)**

**Name of Professor: Mr. Ashok Class: BCA SEM 5**

**Subject:** BCA-356: Multimedia Tools

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| **Month** | **Topic Covered** |
| 01-09-22 to 30-09-22 | Multimedia: Basic Concept, Definition, Components & Applications of Multimedia; Hypermedia and Multimedia; Multimedia Hardware and Software; Multimedia Software Tools; Presentation Tools; Multimedia Authoring: Introduction, Features, Types of Authoring Tools: Card or Page-Based, Icon- Based, Time-Based, Object-Oriented; VRML: History |
| 01-10-22 to 21-10-22 | Images: Graphics/Image Data Types, File Formats; Color Models in Images and Video; Video: Introduction, Types of Video Signals; Analog and Digital Video; Analog Video Standards: NTSC, PAL, SECA; Digital Video Standards: Chroma Subsampling, CCIR Standards, HDTV |
| 27-10-22 to 30-11-22 | Digital Audio: Basic Concepts, Analog vs. Digital Audio, Digitization of Sound; Digital Audio File Formats, MIDI Quantization and Transmission of Audio: Coding of Audio; Pulse Code Modulation; Differential Coding of Audio; Lossless Predictive Coding; DPCM; DM; ADPCM. |
| 01-12-22 to 24-12-22 | Compression Techniques: Introduction, Types of Data Compression, Run-Length Coding, Variable- Length Coding, Dictionary-Based Coding, Transform Coding Image and Video Compression Techniques: JPEG Standard for Image Compression; JPEG Mode, Video Compression Techniques: H.261, H.263, MPEG |

**LESSON PLAN(2022-23-Even)**

**Name of Professor: Mr. Ashok Class: BCA SEM 6**

**Subject: Programming in Core Java BCA-366**

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| **Month** | **Topic Covered** |
| January 2023 to 31 Jan 2023 | Basic Principles of Object Oriented Programming, Introduction to Java, History and Features of Java, Java Virtual Machine (JVM), Java’s Magic Bytecode; The Java Runtime Environment; Basic Language Elements: Lexical Tokens, Identifiers, Keywords, Literals, Comments, Primitive Data types, Operators, Assignments; Input/output in Java: Basics, I/O Classes, Reading Console Input, Control Structures in Java: Decision and Loop Control Statements |
| 1 Feb 2023 to 28 Feb 2023  | Class and Object in Java: Defining Class in Java, Creating Objects of a Class, Defining Methods, Argument Passing Mechanism, Using Class and Objects, Constructors, Nested Class, Inner Class, Abstract Class, Dealing with Static Members; Array & String in Java: Defining an Array, Initializing & Accessing Array, Multi –Dimensional Array, Defining String, Operation on Array and String, Creating Strings using String Class, Creating Strings using StringBuffer Class,; Polymorphism in Java: Basic Concept, Types, Overriding vs. Overloading, Implementation |
| 1 March 2023 to 31 March 2023 | Extending Classes and Inheritance in Java: Benefits of Inheritance, Types of Inheritance in Java, Access Attributes, Inheriting Data Members and Methods, Role of Constructors in Inheritance, Use of “super”; Packages & Interfaces: Basic Concepts of Package and Interface, Organizing Classes and Interfaces in Packages, Defining Package, Adding Classes from a Package to Your Program, CLASSPATH Setting for Packages, Import Package, Naming Convention For Packages , Access Protection in Packages, Standard Packages |
| 1 April 2023 to 30 April 2023 | Exception Handling in Java: The Idea behind Exception, Types of Exception, Use of try, catch, finally, throw, throws in Exception Handling, In-built and User Defined Exceptions, Checked and Un-Checked Exceptions, Catching more than one Exception; Applet in Java: Applet Basics, Applet Architecture, Applet Life Cycle, Applet Tag, Parameters to Applet, Embedding Applets in Web page, Creating Simple Applets; GUI Programming: Designing Graphical User Interfaces in Java, Components and Containers, Using Containers, Layout Managers, AWT Components, AWT Classes, AWT Controls |

**LESSON PLAN(2022-23-Even)**

**Name of Professor: Mr. Ashok Class: BCA SEM 4**

**Subject: Management information System BCA-246**

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| **Month** | **Topic Covered** |
| January 2023 to 31 Jan 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 DecisionMaking, Sub-Systems of an Information system: EDP and MIS management levels, EDP/MIS/DSS. |
| 1 Feb 2023 to 28 Feb 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. |
| 1 March 2023 to 31 March 2023 | Developing Information Systems: Analysis & Design of Information Systems: Implementation & Evaluation, Pitfalls in MIS Development. |
| 1 April 2023 to 30 April 2023 | Functional MIS: A Study of Personnel, Financial and production MIS, Introduction to e-business systems, ecommerce – technologies, applications, Decision support systems – support systems for planning, control and decision-making |

**LESSON PLAN(2023-24-Odd)**

**Name of Professor: Mr. Ashok Class: BCA SEM 3**

**Subject:** BCA – 231 OBJECT ORIENTED PROGRAMMING USING ‘C++

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| **Month** | **Topic Covered** |
| 8 Aug 2023 to 31 Aug 2023 | Object oriented Programming: Object-Oriented programming features and benefits. Object-Oriented features of C++, Class and Objects, Data Hiding & Encapsulation, Structures, Data members and Member functions, Scope resolution operator and its significance, Static Data Members, Static member functions, Nested and Local Class, Accessing Members of Class and Structure. |
| 1 Sep 2023 to 30 Sep 2023  | Constructor, Initialization using constructor, types of constructor– Default, Parameterized & Copy Constructors, Constructor overloading, Default Values to Parameters, Destructors, Console I/O: Hierarchy of Console Stream Classes, Unformatted and Formatted I/O Operations. |
| 1 October 2023 to 31 October 2023 | Manipulators, Friend Function, Friend Class, Arrays, Array of Objects, Passing and Returning Objects to Functions, String Handling in C++, Dynamic Memory Management: Pointers, new and delete Operator, Array of Pointers to Objects, this Pointer, Passing Parameters to Functions by Reference & pointers. |
| 1 November 2023 to 30 November 2023 | Polymorphism: Operators in C++, Precedence and Associativity Rules, Operator Overloading, Unary & Binary Operators Overloading, Function Overloading, Inline Functions |

**LESSON PLAN(2023-24-Even)**

**Name of Professor: Mr. Ashok Class: BCA SEM 4**

**Subject: BCA – 246 MANAGEMENT INFORMATION SYSTEM**

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| **Month** | **Topic Covered** |
| 3 Jan 2024 to 31 Jan 2024 | 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 and MIS management levels, EDP/MIS/DSS |
| 1 Feb 2024 to 29 Feb 2024  | 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. |
| 1 March 2024 to 31 March 2024 | Developing Information Systems: Analysis & Design of Information Systems: Implementation & Evaluation, Pitfalls in MIS Development |
| 1 April 2024 to 15 April 2024 | Functional MIS: A Study of Personnel, Financial and production MIS, Introduction to e-business systems, ecommerce – technologies, applications, Decision support systems – support systems for planning, control and decision-making |

**LESSON PLAN(2023-24-Even)**

**Name of Professor: Mr. Ashok Class: BCA SEM 2**

**Subject: Cloud Computing**

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| **Month** | **Topic Covered** |
| 3 Jan 2024 to 31 Jan 2024 | Basic Concepts of Cloud Computing Computer Network Basics. Concepts of Distributed Systems. Concepts of Cloud Computing and its Necessity. Cloud Service Providers in use and their Significance. |
| 1 Feb 2024 to 29 Feb 2024  | Cloud Infrastructure Cloud Pros and Cons. Cloud Delivery Models. Cloud Deployment Models. |
| 1 March 2024 to 31 March 2024 | Cloud Storage Management Concept of Virtualization and Load Balancing. Overview on Virtualization used for Enterprise Solutions. Key Challenges in managing Information. Identifying the problems of scale and management in big data. |
| 1 April 2024 to 15 April 2024 | Building Cloud Networks Designing and Implementing a Data Center-Based Cloud Installing Open Source Cloud service. Amazon Web Services (AWS). Google Cloud Platform. |