Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir	**Class: BA-I/ B.Sc.-I Semester**
Subject: Computer Science	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Computer Fundamentals: Definition, Functional components of computer, characteristics & classification of computers. Windows: Basics of Windows. Windows History, Basic components of windows	
Week 2: *Assignments*	29July-3 August 2019
Applications of computers in various fields. Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM. Icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications.	
Week 3: *Assignments*	5-10 Aug. 2019
Cache memory, CPU Registers, flash memory. Windows explorer, managing files and folders, Configuring System devices. Control panel.	
Week 4: *Assignments*	12-17 Aug. 2019
Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, CD, DVD. Using windows accessories.	
Week 5: *Assignments*	19-24 Aug 2019
Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. Documentation Using Word - Introduction to Office Automation, Creating & Editing Document.	
Week 6: *Assignments*	26-31 Aug. 2019
Motherboard, ports. Overview of operating system: Definition, functions of operating system. Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmatures of ark.	
Week 7: *Assignments*	2-7 Sept.2019
Concept of multiprogramming, multitasking, multithreading, multiprocessing Advance Features:MS-Word-Mail Merge, Macros, Tables.	
Week 8: *Assignments*	9-14 Sept. 2019
Time-sharing, real time, single-user & multi-user operating system, examples of various operating systems. File Management, Printing, Styles, linking and embedding object.	
Week 9: *Assignments*	16-21 Sept. 2019
Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming. Electronic Spread Sheet using Excel - Introduction to MS-Excel, Creating & Editing Worksheet.	
Week 10: *Assignments*	23-28 Sept.2019
Documentation. Techniques of Problem Solving: Flowcharting, algorithms. Formatting and Essential Operations, Formulas and Functions.	

Week 11: *Assignments*	30 Sept-5 Oct.2019
pseudo code, decision table. Charts, Advance features of MS-Excel-Pivot table & Pivot Chart.	
Week 12: *Assignments*	07-12 Oct. 2019
Structured programming concepts, Programming methodologies viz. top-down and bottom up programming. Linking and Consolidation, Database Management using Excel-Sorting, Filtering, Table, Validation, Goal Seek, Scenario.	
Week 13: *Assignments*	14-19 Oct.2019
Searching, Sorting, and Merging: Presentation using PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides.	
Week 14: *Assignments*	21-23 Oct. 2019
Linear & Binary Searching, Bubble, Selection, and Insertion Sorting. Organizational Charts, Excel Charts, Word Art, Layering art Objects.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Computer Languages: Analogy with natural language, machine language, assembly language, high-level language, language . Animations and Sounds, Inserting Animated Pictures or Accessing through Object.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Translators, characteristics of a good programming language. Inserting Recorded Sound Effect or In-Built Sound Effect.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir	**Class: BA-III / B.Sc.-III Semester**
Subject: Computer Science	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Introduction: Elementary data organization, Data Structure definition, Data type vs. data structure. Introduction: Program vs. Software, Software Engineering, Programming paradigms, Software Crisis – problem and causes.	
Week 2: *Assignments*	29July-3 August 2019
Categories of data structures, Data structure operations, Applications of data structures. Phases in Software development: Requirement Analysis, Software Design, Coding, Testing, Maintenance.	
Week 3: *Assignments*	5-10 Aug. 2019
Algorithms complexity and time-space tradeoff, Big-O notation. Strings. Software Development Process Models: Waterfall, Prototype, Evolutionary	
Week 4: *Assignments*	12-17 Aug. 2019
Introduction, strings, String operations, Pattern matching algorithms. Spiral models, Role of Metrics.	
Week 5: *Assignments*	19-24 Aug 2019
Arrays: Introduction, Linear arrays, Representation of linear array in memory, Traversal, Insertions, Deletion in an array. Feasibility Study, Software Requirement Analysis and Specifications:	
Week 6: *Assignments*	26-31 Aug. 2019
Multidimensional arrays, Parallel arrays, Sparse matrix. Linked List: Introduction, Array vs. linked list. SRS, Need for SRS, Characteristics of an SRS, Components of an SRS**,** Problem Analysis**,**	
Week 7: *Assignments*	2-7 Sept.2019
Representation of linked lists in memory, Traversal, Insertion, Deletion, Searching in a linked list, Header linked list, Circular linked list, Two-way linked list, Garbage collection. Information gathering tools, Organising and structuring information.	
Week 8: *Assignments*	9-14 Sept. 2019
Applications of linked lists. Algorithm of insertion/ deletion in SLL. Requirement specification, validation and metrics.	
Week 9: *Assignments*	16-21 Sept. 2019
Stack: primitive operation on stack, algorithms for push and pop. Representation of Stack as Linked List and array. Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table,	
Week 10: *Assignments*	23-28 Sept.2019
Stacks applications : polish notation, recursion. Introduction to queues, Primitive Operations on the Queues. Decision trees, Structured English, Entity-Relationship diagrams .	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Circular queue, Priority queue, Representation of Queues as Linked List and array. Software Project Planning: Cost estimation: COCOMO model, Project scheduling,	

Staffing and personnel planning.	
Week 12: *Assignments*	07-12 Oct. 2019
Applications of queue. Algorithm on insertion and deletion in simple queue and circular queue. Team structure, Software configuration management, Quality assurance plans, Project monitoring plans, Risk Management.	
Week 13: *Assignments*	14-19 Oct.2019
Trees - Basic Terminology, representation, Binary Trees, Tree Representations using Array & Linked List. Software testing strategies: unit testing, integration testing, V and V ,	
Week 14: *Assignments*	21-23 Oct. 2019
Basic operation on Binary tree, Traversal of binary trees:- In order, Preorder & post order, Applications of Binary tree. System testing, Alpha and Beta testing. Black box, white box testing.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Algorithm of tree traversal with and without recursion. Cyclomatic Complexity. Software Implementation	
Week 16: *Assignments*	4 – 9 Nov. 2019
Introduction to graphs, Definition, Terminology, Directed, Undirected & Weighted graph, Representation of graphs. Maintenance: Type of maintenance**,** Management of Maintenance, Maintenance Process, maintenance characteristics.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir	**Class: BA-V / B.Sc.-V Semester**
Subject: Computer Science	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Basic Concepts – Data, Information, Records and files. Traditional file Based Approach- Limitations of Traditional File Based Approach. Introduction to Internet and World Wide Web; Evolution and History of World Wide Web.	
Week 2: *Assignments*	29July-3 August 2019
Database Approach-Characteristics of Database Approach, Database Management System (DBMS). Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs; Searching.	
Week 3: *Assignments*	5-10 Aug. 2019
Components of DBMS Environment, DBMS Functions and Components. Web-Casting Techniques.	
Week 4: *Assignments*	12-17 Aug. 2019
Advantages and Disadvantages of DBMS. Search Engines and Search Tools.	
Week 5: *Assignments*	19-24 Aug 2019
Actors on the Scene - Data and Database Administrator, Database Designers, End users Applications Developers and Workers behind the Scene. Steps for Developing Website; Choosing the Contents; Home Page; Domain Names; Internet Service Provider.	
Week 6: *Assignments*	26-31 Aug. 2019
Database System Architecture – Three Levels of Architecture, Schemas – External, Conceptual and Internal Level. Planning and Designing Web Site.	
Week 7: *Assignments*	2-7 Sept.2019
Database Languages – VDL, DDL, SDL, DML, SQL, Mappings – External/ Conceptual and Conceptual/Internal. Creating a Website.	
Week 8: *Assignments*	9-14 Sept. 2019
Instances, Data Independence – Logical and Physical Data Independence. Web Publishing: Hosting Site.	
Week 9: *Assignments*	16-21 Sept. 2019
Data Models: High Level, Low Level and Representational – Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Models. Introduction to HTML; Hypertext and HTML; HTML Document Features.	
Week 10: *Assignments*	23-28 Sept.2019
Entity-Relationship Model – Concepts, Entity Types, Entity Sets, Attributes,	

Relationships, Constraints, Keys , Degree, Cardinality etc. HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line, Creating Links.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
ER Diagrams of any Database Organization- Inventory System, Payroll System. Headers; Text Styles; Text Structuring; Text Colors and Background.	
Week 12: *Assignments*	07-12 Oct. 2019
ER Diagrams of a Reservation System, Online Book Store. Formatting Text; Page layouts; Insertion of Text, Movement of Text.	
Week 13: *Assignments*	14-19 Oct.2019
Classification of Database Management System, Centralized and Client Server Architecture. Images: Types of Images, Insertion of Image, Movement of Image,	
Week 14: *Assignments*	21-23 Oct. 2019
Relational Data Model:-Brief History, Terminology in Relational Data Structure, Relations. Ordered and Unordered lists; Inserting Graphics; Table Handling Functions like Columns, Rows, Width, Colours.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Properties of Relations, Keys – Primary, Secondary, Composite, Candidate. Frame Creation and Layouts; Working with Forms and Menus.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Alternate and Foreign Key, Domains, Integrity Constraints over Relations. Working with Buttons like Radio, Check Box;	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. VIPIN	**Class: BCA-V Semester**
Subject: BCA-351: Web Designing Fundamentals	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Introduction to Internet and World Wide Web; Evolution and History of World Wide Web	
Week 2: *Assignments*	29July-3 August 2019
Basic Features; Web Browsers; Web Servers; Hypertext Transfer Protocol	
Week 3: *Assignments*	5-10 Aug. 2019
URLs; Searching and Web- Casting Techniques	
Week 4: *Assignments*	12-17 Aug. 2019
Search Engines and Search Tools	
Week 5: *Assignments*	19-24 Aug 2019
Steps for Developing Website; Choosing the Contents; Home Page	
Week 6: *Assignments*	26-31 Aug. 2019
Domain Names; Internet Service Provider.	
Week 7: *Assignments*	2-7 Sept.2019
Planning and Designing Web Site; Creating a Website	
Week 8: *Assignments*	9-14 Sept. 2019
Web Publishing: Hosting Site.	
Week 9: *Assignments*	16-21 Sept. 2019
Introduction to HTML; Hypertext and HTML; HTML Document Features.	
Week 10: *Assignments*	23-28 Sept.2019
HTML Tags; Header, Title, Body, Paragraph, Ordered/Unordered Line, Creating Links; Headers; Text Styles.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Text Structuring; Text Colors and Background; Formatting Text.	
Week 12: *Assignments*	07-12 Oct. 2019
Page layouts; Insertion of Text, Movement of Text.	
Week 13: *Assignments*	14-19 Oct.2019
Images: Types of Images, Insertion of Image, Movement of Image.	
Week 14: *Assignments*	21-23 Oct. 2019
Ordered and Unordered lists; Inserting Graphics	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Table Handling Functions like Columns, Rows, Width, Colours; Frame Creation and Layouts.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Working with Forms and Menus; Working with Buttons like Radio, Check Box.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir	**Class: BCA-V Semester**
Subject: BCA-352: Operating System-I	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Operating System: Definition, Characteristics, Components, Functions, Examples; Types of Operating System: Single User/Multi User,.	
Week 2: *Assignments*	29July-3 August 2019
Classification of Operating System: Batch, Multiprogrammed, Timesharing, Multiprocessing,.	
Week 3: *Assignments*	5-10 Aug. 2019
Parallel, Distributed, Real Time; System Calls and System Programs: Process Control.	
Week 4: *Assignments*	12-17 Aug. 2019
File Manipulation, Device Manipulation, Information Maintenance, Communications.	
Week 5: *Assignments*	19-24 Aug 2019
Process Management: Process concept, Process states and Process Control Block; Process Scheduling.	
Week 6: *Assignments*	26-31 Aug. 2019
Scheduling Queues, Schedulers, Context Switch; Operation on Processes: Process Creation, Process Termination; Cooperating Processes.	
Week 7: *Assignments*	2-7 Sept.2019
Introduction to Threads, Inter-process Communication; CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, Priority, Round-Robin.	
Week 8: *Assignments*	9-14 Sept. 2019
Multilevel Queue, Multilevel Feedback Queue Scheduling.	
Week 9: *Assignments*	16-21 Sept. 2019
Deadlocks: System Model, Deadlock Characterization, Methods of Handling Deadlocks, Deadlock Prevention.	
Week 10: *Assignments*	23-28 Sept.2019
Deadlock Avoidance, Deadlock Detection and Recovery Memory Management: Introduction, Swapping, Contiguous Allocation.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Single-Partition/Multiple Partition Allocation, External/Internal Fragmentation; Paging: Basic Method, Hardware, Implementation of Page table.	
Week 12: *Assignments*	07-12 Oct. 2019
Segmentation: Basic Method, Hardware, Implementation of Segment Table, Advantages/Disadvantages of Paging/Segmentation.	
Week 13: *Assignments*	14-19 Oct.2019
Virtual Memory: Introduction, Demand Paging, Page Replacement	
Week 14: *Assignments*	21-23 Oct. 2019
, Page Replacement Algorithms: FIFO, Optimal, LRU, Counting; Thrashing and its cause;	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
File Management: File Concepts, File Attributes, File Operations, File Types, File Access/Allocation Methods	
Week 16: *Assignments*	4 – 9 Nov. 2019
File Protection, File Recovery .	

Week 17: ***Assignments***	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir | **Class: BCA-V Semester**

Subject: BCA-353: Artificial Intelligence | **Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Artificial Intelligence : Intelligence, AI Concepts, Various definitions of AI, Knowledge, Knowledge Pyramid.	
Week 2: *Assignments*	29July-3 August 2019
People and Computers: What computers can do better that people, what people can do better than computers; Characteristics of AI Problems.	
Week 3: *Assignments*	5-10 Aug. 2019
Problem Representation in AI, Components of AI, AI Evolution, Application.	
Week 4: *Assignments*	12-17 Aug. 2019
Areas of AI, History of AI, The Turing Test, The Revised Turing Test.	
Week 5: *Assignments*	19-24 Aug 2019
Expert System: Components of Expert System: Knowledge Base, Inference Engine, User Interface.	
Week 6: *Assignments*	26-31 Aug. 2019
Features of Expert System, Expert System Life Cycle, Categories of Expert System, Rule Based vs. Model Based Expert Systems.	
Week 7: *Assignments*	2-7 Sept.2019
Advantages/Limitations of Expert System, Developing an Expert System: Identification, Conceptualization, Formalization, Implementation.	
Week 8: *Assignments*	9-14 Sept. 2019
Testing, Using an Expert System, Application Areas of Expert System.	
Week 9: *Assignments*	16-21 Sept. 2019
AI and Search Process: Brute Force Search – Depth First/Breadth First Search.	
Week 10: *Assignments*	23-28 Sept.2019
Heuristic Search: Hill Climbing, Constraint Satisfaction.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
, Mean End Analysis, Best First Search, A* Algorithm.	
Week 12: *Assignments*	07-12 Oct. 2019
AO* Algorithm, Beam Search.	
Week 13: *Assignments*	14-19 Oct.2019
Natural Language Processing: Introduction, Need, Goal, Fundamental Problems in Natural Language Understanding,	
Week 14: *Assignments*	21-23 Oct. 2019
How People overcome Natural Language Problems, Speech Recognition: Introduction, Advantages and Approaches, Introduction to Robotics.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Parts of a Robot, Controlling a Robot.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Intelligent Robots, Mobile Robots.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Vipin | **Class: BCA-V Semester**

Subject: BCA-354: Computer Networks | **Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Introduction to Data Communication and Computer Networks; Uses of Computer Networks.	
Week 2: *Assignments*	29July-3 August 2019
Types of Computer Networks and their Topologies; Network Hardware Components: Connectors, Transceivers.	
Week 3: *Assignments*	5-10 Aug. 2019
Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways; Network Software: Network Design issues and Protocols; Connection-Oriented and Connectionless Services;	
Week 4: *Assignments*	12-17 Aug. 2019
OSI Reference Model; Networking Models: Distributed Systems, Client/Server Model, Peer-to-Peer Model, Web-Based Model and Emerging File-Sharing Model.	
Week 5: *Assignments*	19-24 Aug 2019
Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate.	
Week 6: *Assignments*	26-31 Aug. 2019
Transmission Impairment; Data Rate Limits; Guided Transmission Media.	
Week 7: *Assignments*	2-7 Sept.2019
Wireless Transmission ; Communication Satellites; Switching and Multiplexing.	
Week 8: *Assignments*	9-14 Sept. 2019
Modems and Modulation techniques; ADSL and Cable Modems.	
Week 9: *Assignments*	16-21 Sept. 2019
Data Link Layer Design issues; Error Detection and Correction; Sliding Window Protocols.	
Week 10: *Assignments*	23-28 Sept.2019
One-bit, Go Back N and Selective Repeat; Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Introduction to LAN technologies: Ethernet, Switched Ethernet, Fast Ethernet, Gigabit	
Week 12: *Assignments*	07-12 Oct. 2019
Ethernet; Token Ring; Introduction to Wireless LANs and Bluetooth; VLANs	
Week 13: *Assignments*	14-19 Oct.2019
Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing;	
Week 14: *Assignments*	21-23 Oct. 2019
Link State Routing, Hierarchical Routing; Congestion Control; Traffic shaping; Choke packets; Load shedding.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Elements of Transport Protocols; Network Security Issues: Security attacks.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Encryption methods; Digital Signature; Digital Certificate.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Rajbir	**Class: BCA-V Semester**
Subject: BCA-355: Programming Using Visual Basic	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Introduction to VB: Visual & Non-Visual programming, Procedural, Object-Oriented, Object-Based and Event-Driven Programming Languages, VB as Even-Driven and Object-Based Language.	
Week 2: *Assignments*	29July-3 August 2019
VB Environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties Window	
Week 3: *Assignments*	5-10 Aug. 2019
Form Designer, Form Layout, Immediate window.	
Week 4: *Assignments*	12-17 Aug. 2019
Default Controls in Tool Box Visual Development and Event Driven programming.	
Week 5: *Assignments*	19-24 Aug 2019
Basics of Programming: Variables: Declaring Variables, Types of variables, Converting Variables Types.	
Week 6: *Assignments*	26-31 Aug. 2019
User Defined Data Types, Forcing Variable Declaration, Scope & Lifetime of Variables. Constants.	
Week 7: *Assignments*	2-7 Sept.2019
Named & Intrinsic, Operators: Arithmetic, Relational & Logical operators, Input/output in VB:	
Week 8: *Assignments*	9-14 Sept. 2019
Various Controls for I/O, Message box, Input Box, Print statement**.**	
Week 9: *Assignments*	16-21 Sept. 2019
Decision Statements in VB - if statement, if-then-else, select-case.	
Week 10: *Assignments*	23-28 Sept.2019
Looping Statements in VB: do-loop, for-next, while-wend; Exit statement, Nested Control Structure;.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Arrays: Declaring and using Arrays, One-dimensional, Two-dimensional and Multi-dimensional Arrays.	
Week 12: *Assignments*	07-12 Oct. 2019
Static and Dynamic arrays, Array of Arrays.	
Week 13: *Assignments*	14-19 Oct.2019
Procedures: General & Event Procedures, Subroutines, Functions, Calling Procedures, Arguments - Passing Mechanisms, Optional Arguments, Named Arguments.	
Week 14: *Assignments*	21-23 Oct. 2019
Functions Returning Custom Data Types Simple Program Development in VB such as Sum of Numbers.	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Greatest among Numbers, Checking Even/Odd Number, HCF of Two Numbers.	
Week 16: *Assignments*	4 – 9 Nov. 2019
Generate Prime Numbers, Generate Fibonacci Series, Factorial of a Number, Searching, Sorting, etc.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	

Lesson Plan

Indira Gandhi National College, Ladwa

Name: Mr. Vipin	**Class: BCA-V Semester**
Subject: BCA-356: Multimedia Tools	**Duration: 17 weeks (from 23 July 2019 to 15 Nov. 2019)**

Week 1: *Assignments*	23-27July 2019
Multimedia: Basic Concept, Definition, Components & Applications of Multimedia; Hypermedia and Multimedia.	
Week 2: *Assignments*	29July-3 August 2019
Multimedia Hardware and Software; Multimedia Software Tools; Presentation Tools.	
Week 3: *Assignments*	5-10 Aug. 2019
Multimedia Authoring: Introduction, Features, Types of Authoring Tools: Card or Page-Based.	
Week 4: *Assignments*	12-17 Aug. 2019
Icon- Based, Time-Based, Object-Oriented; VRML: History, Features.	
Week 5: *Assignments*	19-24 Aug 2019
Images: Graphics/Image Data Types, File Formats; Color Models in Images and Video.	
Week 6: *Assignments*	26-31 Aug. 2019
Video: Introduction, Types of Video Signals; Analog and Digital Video.	
Week 7: *Assignments*	2-7 Sept.2019
Analog Video Standards: NTSC, PAL, SECA; Digital Video Standards.	
Week 8: *Assignments*	9-14 Sept. 2019
Chroma Subsampling, CCIR Standards, HDTV.	
Week 9: *Assignments*	16-21 Sept. 2019
Digital Audio: Basic Concepts, Analog vs. Digital Audio, Digitization of Sound.	
Week 10: *Assignments*	23-28 Sept.2019
; Digital Audio File Formats, MIDI Quantization and Transmission of Audio: Coding of Audio.	
Week 11: *Assignments*	30 Sept-5 Oct.2019
Pulse Code Modulation; Differential Coding of Audio; Lossless Predictive.	
Week 12: *Assignments*	07-12 Oct. 2019
Coding; DPCM; DM; ADPCM.	
Week 13: *Assignments*	14-19 Oct.2019
Compression Techniques: Introduction, Types of Data Compression, Run-Length Coding,	
Week 14: *Assignments*	21-23 Oct. 2019
Variable- Length Coding, Dictionary-Based Coding,	
Diwali Break	***24-30 Oct.2019***
Week 15: *Assignments*	31 Oct-3 Nov. 2019
Transform Coding Image and Video Compression Techniques.	
Week 16: *Assignments*	4 – 9 Nov. 2019
JPEG Standard for Image Compression.	
Week 17: *Assignments*	11 – 16 Nov. 2019
Revision	