# BCA V SEMESTER

### BCA-351: Web Designing Fundamentals

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|---|---|
| CO-1 | Introduction to Internet and WWW |
| CO-2 | Features of Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web- Casting Techniques; Search Engines and Search Tools |
| CO-3 | Detailed Steps For Developing ,Hosting Website and Publishing on Web |
| CO-4 | Detailed Study of HTML Tags, Features  along with  Practical approach to develop a Webpage |
| CO-5 | How to Insert and Move Images on a Web page |
| CO-6 | Concept of Ordered and Unordered Lists |
| CO-7 | How to work with Frames, Forms, Menus |
| CO-8 | How to work with Buttons like Radio Box, Check Box |

### BCA-352: Operating System-I

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|---|---|
| CO-1 | Basics  Concepts of Operating System |
| CO-2 | Different Classification and Types of Operating System |
| CO-3 | Concept of System Calls, System Programs: Process Control, File Manipulation, Device Manipulation, Information Maintenance, Communications |
| CO-4 | Basic concept of Process, Process Scheduling, Operations, PCB |
| CO-5 | How different Scheduling Algorithms work |
| CO-6 | Detailed Study of Deadlock ,Memory Management with Paging and Segmentation |
| CO-7 | Concept of Virtual Memory and Page Replacement Algorithms |
| CO-8 | File Management |

### BCA-353: Artificial Intelligence

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|---|---|
| CO-1 | Basic concepts and Detailed Description of AI |
| CO-2 | How to Represent Problems in AI |
| CO-3 | Concept of Turing Test |
| CO-4 | Detailed discussion on Expert system and how Expert System Life Cycle Works |
| CO-5 | How to develop an Expert system |
| CO-6 | Various Searching Techniques in AI with Practical Approach |
| CO-7 | Introduction to Natural Language Processing and How People Overcome Natural Language Problems |
| CO-8 | Introduction to Robotics and Speech Recognition |

### BCA-354: Computer Networks

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|---|---|
| CO-1 | Basic Concepts of Computer Networks: Types, Topologies, Network Hardware Components, Network Software |
| CO-2 | Description of different models of Networks |
| CO-3 | Concept of Analog and Digital data and signals, Transmission, Communication Satellites; Switching and Multiplexing; Modems and Modulation techniques |
| CO-4 | Concept of Data Link Layer Design issues, Sliding Window Protocols and Media Access Control |
| CO-5 | Introduction to LAN Technologies |
| CO-6 | Different Types of Routing Algorithms |
| CO-7 | Basic Network Security Issues |

## BCA-355: Programming Using Visual Basic

| CO-1 | Introduction to VB and its Environment |
|------|----------------------------------------|
| CO-2 | Concept of Event Driven Programming Languages |
| CO-3 | Basics of Programming |
| CO-4 | How to convert, declare ,scope ,Lifetime of variables |
| CO-5 | Concept of User Defined Data Types |
| CO-6 | Operators and I/O in VB |
| CO-7 | Description of Decision and  Looping Statements |
| CO-8 | Concept of Arrays and Procedures |
| CO-9 | Programs in VB |

## BCA-356: Multimedia Tools

| CO-1 | Basic Concepts of Multi Media, Hyper Media, Multimedia H/W and S/W |
|------|-------------------------------------------------------------------|
| CO-2 | Different Types of Authoring Tools in Multimedia |
| CO-3 | Concept of Images and Videos with Different Standards |
| CO-4 | Basic Concepts of Digital Audio |
| CO-5 | Quantization and Transmission of Audio |
| CO-6 | Description of Different Data Compression techniques |
| CO-7 | Detailed Study of Image Compression techniques |
| CO-8 | Detailed Study of Video Compression techniques |

# BCA VI SEMESTER

## BCA-361: Web Designing Using Advanced Tools

| CO-1 | Detailed study of Java Script  Interactivity Tool |
|------|---------------------------------------------------|
| CO-2 | Concept of Event handling in Java Script |
| CO-3 | Detailed study of VB Script  Interactivity Tool |
| CO-4 | Concept of Event Handlers in VB Script |
| CO-5 | How to Embed VB Script in HTML |
| CO-6 | Detailed study of Active Script Pages Interactivity Tool |
| C0-7 | Discussion of Various Techniques of Connecting to Database |
| C0-8 | Introduction to Macromedia Flash, Macromedia Dreamweaver, PHP |
| C0-9 | Concept of DHTHML,CSS, linking and embedding |
| CO-10 | Detailed study of Microsoft Front Page and XML |

## BCA-362: Operating System-II

| CO-1 | Concept of Process Synchronization via single and two process solution |
|------|------------------------------------------------------------------------|
| CO-2 | Discussion of Classical Problems of Synchronization |
| CO-3 | Concept of Deadlocks, Starvation and Semaphores |
| CO-4 | Discussion of the Directory Structure |
| CO-5 | Explanation of Disk Structure, Disk Management, Swap Space Management |
| CO-6 | Detailed description of Disk Scheduling algorithms |
| CO-7 | Concept of Network and Distributed Operating System |
| CO-8 | Linux: Introduction, Commands, Processes, File System |
| CO-9 | In-depth knowledge of vi Editor and Shell Programming |

## BCA-363: Computer Graphics

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|------|------|
| CO-1 | Introduction to Computer Graphics: Interactive, Passive Graphics, Applications |
| CO-2 | Detailed description of Display Devices and Interactive Input Devices |
| CO-3 | Various Algorithms of Point Plotting techniques of Line, Circle, Ellipse |
| CO-4 | Polygon Area Filling: Scan-line Fill and Flood Fill Algorithms |
| CO-5 | Concept of Two-Dimensional Graphics Transformation ,Graphical  Input |
| CO-6 | Concept of Two Dimensional Viewing |
| CO-7 | Various Clipping algorithms |
| CO-8 | Concept of three dimensional graphics |

## BCA-364: Internet Technologies

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|------|------|
| CO-1 | Introduction to Internet Services, TCP/IP,OSI Model |
| CO-2 | Concept of WWW, URL, HTTP, Web Browsers, Chat & Bulletin Board, USENET & NNTP |
| CO-3 | TCP, UDP and IP Protocols, DNS Mapping |
| CO-4 | Mapping Internet Addresses to Physical Addresses: ARP, RARP, DHCP; ICMP,IGMP |
| CO-5 | Protocols of Application layer |
| CO-6 | Concept of FTP, TFTP, NFS, TELNET |
| CO-7 | Voice and Video over IP: RTP, RTCP, IP Telephony and Signaling, RSVP |
| CO-8 | Concept of Internet routing and security |

## BCA-365: Advanced Programming with Visual Basic

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|------|------|
| CO-1 | Detailed Description of Collections |
| CO-2 | How to work with Forms, Concept of events |
| CO-3 | Program in VB using Forms |
| CO-4 | How to work with menus in VB |
| CO-5 | Discussion on Advance Controls |
| CO-6 | How to develop Program in VB using Menus and Advance Controls |
| CO-7 | File Handling and working with Graphics |
| CO-8 | How to access the database and develop program in VB using Database and Advance Controls |

## BCA-366: Programming in Core Java

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|------|------|
| CO-1 | Introduction to Java, JVM, Basic Language Elements, Input/Output and Structures in Java |
| CO-2 | Discussion of Classes and Objects in Java |
| CO-3 | Concept of polymorphism, string, overloading, overriding with its implementation |
| CO-4 | Extending Classes and Inheritance in Java |
| CO-5 | Concept of Packages and Interfaces in Java |
| CO-6 | Use of Exception Handling in Java |
| CO-7 | Use of applet in Java |
| CO-8 | Programming in Java |