MULTIMEDIA (BCA C4001)

TIME-3 hr   FULL MARKS-70   CREDIT-4

The question paper shall consists of two sections: A and B. **Section A** will have eight (08) questions, out of which four (04) questions will be answered and will carry 10 marks each. **Section B** will consists of 10 short answer type questions which will cover the entire syllabus and will carry 30 marks in all., each short-answer type questions carrying 3 marks.

UNIT -1: AN OVERVIEW OF MULTIMEDIA
The Concept. Hardware for Multimedia Computer. Software for Multimedia. Components of Multimedia. Multimedia-Design, Production and Distribution. **[Q-2]**

UNIT -2: APPLICATIONS OF MULTIMEDIA:
Application Areas for Multimedia. Publishing Industry and Multimedia. Communication Technology and Multimedia Services. Multimedia in Business. **[Q-1]**

UNIT-3: MULTIMEDIA PEDAGOGUES:
Interactive Systems for Teaching and Learning. Concepts for Distributed Learning Environment. A Medical Application: Med net - A Medical Collaboration and Consultation System. **[Q-2]**

UNIT -4: MULTIMEDIA AUTHORING TOOLS:
Multimedia Development Tools. Features of Authoring Software. Authoring Tools. Quick Time. Hypertext. Applications of Hypertext. Elements of Hypertext. **[Q-2]**

UNIT -5: MULTIMEDIA DEVELOPMENT:
Learning Interface Design. Planning the Multimedia Programme/Application. Development TIPS of Multimedia Building Blocks. Multimedia Authoring. **[Q-1]**

TEXT BOOK:
1. Tay Vaughan - 1999– Multimedia : Making it work – Fourth Edition – Tata McGraw – Hill Edition.

REFERENCE BOOKS:
1. Walterworth john A– 1991- Multimedia Technologies and Application - Ellis Horwood Ltd. – London.
2. John F koegel Buford – Multimedia Systems – Addison Wesley – First Indian Reprint.

OPERATING SYSTEM (BCA C4002)

TIME-3 hr   **FULL MARKS-70**   **CREDIT-5**

The question paper shall consists of two sections: A and B. **Section A** will have eight (08) questions, out of which four (04) questions will be answered and will carry 10 marks each. **Section B** will consists of 10 short answer type questions which will cover the entire syllabus and will carry 30 marks in all., each short-answer type questions carrying 3 marks.

UNIT 1: INTRODUCTION & COMPUTER-SYSTEM STRUCTURES
What is an Operating System? Function O.S., O.S structure, Types of O.S, I/O Structure, Storage Structure, Storage Hierarchy, System call. **[Q-2]**

UNIT 2: PROCESSES & CPU SCHEDULING:
Process Concept; Process Scheduling, Operations On Processes. Basic Concepts; Scheduling Criteria; Scheduling Algorithms. **[Q-2]**

UNIT 3: STORAGE MANAGEMENT
Memory Management-, Contiguous Memory Allocation, Paging, Demand Paging, Segmentation, Access Methods; Directory Structure; Protection. **[Q-2]**

UNIT 4: DISK MANAGEMENT:
Disk Structure; Disk Scheduling; Disk Management; Swap-Space Management. **[Q-1]**

UNIT 5: FILE MANAGEMENT:
File-System Structure; File-System Implementation; Directory Implementation; Allocation Methods, Free-Space Management. **[Q-1]**

TEXT BOOK:
1. A. Silberschatz et.al.-Operating System Concepts , 6th Edition, John Wiley Inc., 2003

REFERENCE BOOKS:
1. H.M. Deitel -Operating Systems , 6th Edition, Pearson Education, 2006
2. D.M. Dhandhare - Operating Systems, 2nd Edition, Tata McGraw Hill, New Delhi, 2006

HTML (BCA C4003)

TIME-3 hr   **FULL MARKS-70**   **CREDIT-4**

The question paper shall consists of two sections: A and B. **Section A** will have eight (08) questions, out of which four (04) questions will be answered and will carry 10 marks each. **Section B** will consists of 10 short answer type questions which will cover the entire syllabus and will carry 30 marks in all., each short-answer type questions carrying 3 marks.

UNIT 1: Introduction to HTML & Tags
Introduction to HTML, HTML documents structure tags, HTML text formatting tags, Inserting Special characters, Anchor tag, List tag, Adding images and sound. **[Q-2]**

UNIT 2: Advanced HTML
Tables, Frames and floating, developing forms. **[Q-1]**

UNIT 3: CSS (Cascading Style Sheet)
Introduction to CSS, Need of design in HTML pages, Tag structure, various selectors (ID, class), various properties of font and div tag. **[Q-1]**

UNIT 4: Data Access & Error Handing
Web Techniques, HTTP Basics, Server Information, Processing Forms, Setting Response Headers, Maintaining State, Databases, Using PHP to Access a Database, Security, Session Fixation, File Uploads, File Access, PHP Code, Handling Output, Error Handling. **[Q-2]**

UNIT 5: HTML Graphics and HTML Media
HTML Forms, HTML Form Elements, HTML Input Types, HTML Input Attributes, HTML Support, HTML New Elements, HTML Semantics, HTML Migration, HTML Style Guide . **[Q-2]**

TEXT BOOK:
1. Jackson, Web Technologies: A Computer Science Perspective, Pearson Education, 2007.

REFERENCE BOOK:
1. Kriss Jamsa, Konrad King, HTML & Web Design, TMH Publications, 2002.
2. Jason Hunter, William Crawford, Servlet Programming, O'REILY, 2010.

VISUAL PROGRAMMING (BCA C4004)

TIME-3 hr   **FULL MARKS-70**   **CREDIT-4**

The question paper shall consists of two sections: A and B. **Section A** will have eight (08) questions, out of which four (04) questions will be answered and will carry 10 marks each. **Section B** will consists of 10 short answer type questions which will cover the entire syllabus and will carry 30 marks in all., each short-answer type questions carrying 3 marks.

Unit 1: Introduction to NET:

The .NET Framework and the Common Language Runtime, Integrated Development Environment. **[Q-2]**

Unit 2:Programming in C#:

Data types in C#, Keywords, Operators, Conditionals and Loops. **[Q-1]**

Unit 3:.NET Assemblies. :

.NET Assemblies, Shared Assemblies, Side-By-Side execution of two versions of SharedObject, Benefits of Assemblies over Predecessors. **[Q-2]**

Unit 4: Windows Forms:

Working with Windows Forms, Working with Windows Form Controls, Buttons, Text Boxes, Labels, Checkboxes, Radio Buttons, Listbox, Combobox, Datetime Picker, Panels, Imagebox , Progressbar, Open File Dialog, Save File Dialog, Timer. **[Q-2]**

Unit 5: ADO.Net:

Introduction to Ado.Net, ADO.Net Data Providers, Working with Connection, Command, DataAdapter, Dataset & Datatable. Connecting a database with Windows Application using DataGridView control. **[Q-1]**

Text Book: 1. Steven Holizner, Visual Basic.NET Programming Black Book, 5TH Ed. (2007), Dreamtech Publication.

Reference Books:

1. Dinesh Maidasani, VB.net, Firewall Media Publication, 2007.

COMPUTER NETWORKS (BCA C4005)

TIME-3 hr　　　　　　**FULL MARKS-70**　　　　　　**CREDIT-5**

The question paper shall consists of two sections: A and B. **Section A** will have eight (08) questions, out of which four (04) questions will be answered and will carry 10 marks each. **Section B** will consists of 10 short answer type questions which will cover the entire syllabus and will carry 30 marks in all., each short-answer type questions carrying 3 marks.

UNIT 1: BASIC CONCEPTS AND TERMINOLOGY:
Introduction, OSI Model, Tcp/IP Model, Services and Standards. **[Q-2]**

UNIT 2: COMPUTER NETWORK:
Network Topology, Performance of Network, Network Classification, Advantages & Disadvantages of Network, Transmission Media (guided and unguided), Network Architecture.
[Q-2]

UNIT 3: DATA LINK LAYER:
Need for Data Link Control, Flow Control & Error Control: Flow control mechanism, Error Detection and Correction techniques. **[Q-1]**

UNIT 4: NETWORK LAYER: Routing, Congestion control, Internetworking principles, Internet Protocols:IPv4 packet format, Hierarchal addressing sub netting. **[Q-1]**

UNIT 5: TRANSPORT LAYER: Process to Process Delivery, TCP, UDP, TCP connection.
[Q-1]

UNIT 6: APPLICATION Layer:
Telnet, FTP, NFS, SMTP, SNMP and HTTP. **[Q-1]**

TEXT BOOK:
1. Prakash C. Gupta -Data Communications & Computer Networks, PHI, New Delhi.

REFERENCE BOOKS:
1. William Stallings- Data & Communications, 6th Edition, Pearson Education.
2. Tanenbaum- Computer Networks, 3rd Edition, PHI, New Delhi.

MULTIMEDIA LAB (BCA P4006)

TIME-3 hr　　　　　　**FULL MARKS-50**　　　　　　**CREDIT-1**

Experiment problems of Multimedia Lab will be from the theory classes of BCA C4001

VISUAL PROGRAMMING LAB (BCA P4007)

TIME-3 hr   **FULL MARKS-50**   **CREDIT-1**

Experiment problems of Visual Programming Lab will be from the theory classes of BCA C4004

HTML LAB (BCA P4008)

TIME-3 hr   **FULL MARKS-50**   **CREDIT-1**

Experiment problems of HTML will be from the theory classes of BCA C4004