

B.Sc. (Computer Applications) Vocational - First Year(w.e.f. 2011-12)

Paper No.	Title of Paper	External Marks	Internal Assessment	Max. Marks	Exam Duration
Semester – I					
I	Introduction to PC & Windows Operating System	40	10	50	3hrs
II	Application Software	40	10	50	3hrs
III	Practical (Windows, Word, Excel, Power Point)			50	3hrs
Semester – II					
IV	Introduction to Information Technology	40	10	50	3hrs
V	Programming Fundamental	40	10	50	3hrs
VI	Practical (C Language)			50	3hrs

B.Sc. (Computer Applications) Vocational - Second Year(w.e.f. 2012-13)

Paper No.	Title of Paper	External Marks	Internal Assessment	Max. Marks	Exam Duration
Semester – III					
I	Introduction to Web Designing – I	40	10	50	3hrs
II	RDBMS using MS-Access	40	10	50	3hrs
III	Practical (HTML and MS-Access)			50	3hrs
Semester – IV					
IV	Introduction to Web Designing – II	40	10	50	3hrs
V	Management Information System	40	10	50	3hrs
VI	Practical (Web Designing)			50	3hrs

B.Sc. (Computer Applications) Vocational - Third Year(w.e.f. 2013-14)

Paper No.	Title of Paper	External Marks	Internal Assessment	Max. Marks	Exam Duration
Semester – V					
I	Multimedia Tools	40	10	50	3hrs
II	Desktop Publishing	40	10	50	3hrs
III	Practical			50	3hrs
Semester – VI					
IV	Introduction to Linux	40	10	50	3hrs
V	Introduction to .Net	40	10	50	3hrs
VI	Practical (Linux and .Net)			50	3hrs

Internal assessment will be based on the following criteria:

1. Two Handwritten Assignments : 10%
(1st Assignment after one month &
Iind Assignment after two months)
2. One Class Test : 5%
(one period duration)
3. Attendance : 5%

Marks for Attendance will be given as under:

1. 91% onwards : 5 Marks
2. 81% to 90% : 4 Marks
3. 75% to 80% : 3 Marks
4. 70% to 75% : 2 Marks*
5. 65% to 70% : 1 Mark*

***FOR STUDENTS ENGAGED IN CO-CURRICULAR ACTIVITIES OF THE
COLLEGES ONLY/AUTHENTICATED MEDICAL GROUNDS DULY APPROVED
BY THE CONCERNED PRINCIPAL.**

PAPER – I INTRODUCTION TO PC & WINDOWS OPERATING SYSTEM

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT - I

PC evolution: - PC; Evolution of PC through Pentium; PC classifications; 8088, 80286, 80386, 80486, Pentium, Introduction to Microprocessors other than Intel like AMD, Cyrix etc. and their processor range.

Inside the PC system unit: - PC system; PC system unit layout; System box, Motherboard, Motherboard memory, Expansion slots, Daughter board, SMPS, Display unit, Keyboard, Rear side connectors

UNIT - II

Bus Architecture: - PC bus, PC-AT bus, ISA bus, PCI bus, EISA bus and USB

BIOS: ROM BIOS, Hardware-BIOS- DOS interaction, Hardware BIOS windows interaction, and BIOS setup program

Advanced Systems: Card-less Mouse & Keyboards, Infrared Interface.

Monitors: Block diagram of monochrome monitors, Pixels and resolution, Sync section , video amplifier, Display basics , test modes and graphic mode, Display adapter cards, HGA, CGA, VGA, EGA and super VGA, Block diagram of color monitors, basic color theory.

UNIT - III

Keyboards: Study of keyboards, types, interface 8048, Interconnection to PC, Introduction to mouse on serial ports, Parallel port card, serial port card, integrated card, Joy stick, light pen, graphics table controller

Printers: Types of printers: DMP, INKJET, LASER, LINE,

Memories: Memory speed , access time, wait states,, Types of memory, Dynamic and Static RAM, memory chip making, Cache memory , shadow RAM, ROM chips, Reading memory error messages , adding RAM

UNIT - IV

Windows OS: Features of Windows OS, Creating Folders and Short Cuts, Copying, Moving & deleting Files & Folders. Desktop, Recycle Bin, My Computer, My Documents, Windows Explorer, Searching Files & Folders, Control Panel – Task Bar & Start Menu, Adding & Removing Programs, Adding H/W, Setting Date & Time, Administrative Tools, User Accounts.

TEXT BOOKS

1. PC Hardware Complete Reference - Craig Zacker & John Rourke, Tata McGraw Hill
2. Inside the PC (8th Edition) - Peter Norton, BPB.

REFERENCES BOOKS

1. The Indispensable PC Hardware Book - Messmer, Pearson Education
2. Troubleshooting and Repairing Your PC - Corey Candler, Wiley
3. Upgrading and repairing PC's (4th edition) - Scott Mueller, Pearson Education
4. IBM PC Assembly Language Programming - Abel, PHI

PAPER-II APPLICATION SOFTWARE

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

MS PowerPoint: Introduction & area of use; Creating a New Presentation; Working with Presentation; Using Wizards; Slides & its different views; Inserting, Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists; Adding Graphics, Sounds and Movies to a Slide; Working with PowerPoint Objects; Designing & Presentation of a Slide Show; Printing Presentations, Notes, Handouts with print options. Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect. Outlook Express: Features and uses, Configuring and using Outlook Express for accessing e-mails in office.

UNIT-II

MS Word: Introduction area of use, Menus & Commands; Toolbars & Buttons; Shortcut Menus, Wizards & Templates; Creating a New Document; Different Page Views and layouts; Applying various Text Enhancements; Working with – Styles, Text Attributes; Paragraph and Page Formatting; Text Editing using various features ; Bullets, Numbering, Auto formatting, Printing. Spell Check, Thesaurus, Find & Replace; Headers & Footers ; Inserting – Page Numbers, Pictures, Files, Autotexts, Symbols etc.; Working with Columns, Tabs & Indents; Creation & Working with Tables; Margins & Space management in Document; Adding References and Graphics; Mail Merge, Envelops & Mailing Labels. Importing and exporting to and from various formats.

UNIT – III

Excel: Creating & Saving work book. Structure of Worksheet, entering & editing data, Copying & Moving data, Finding & Replacing data. Filling Data. Sorting data. Formatting Data – Number Style Format, Border & Color, Rotating Texts, Conditional Formatting. Arranging Multiple Workbooks or Windows, Hiding & Unhiding – workbooks, worksheets, rows & columns. Inserting Columns & Rows. Adjusting widths & Heights of Columns & Rows. Copying, moving, inserting, deleting & renaming worksheets in workbooks. Defining, Inserting & deleting Cell or Range Names.

UNIT – VI

Formulas & Functions: Mathematical operators. Creating, changing & copying formulas. Absolute referencing. Functions – Log, Sum, Average, Count, If, Max, SumIf. Date & Time, Database, Text, Maths & Statistical functions. Charts in Excel: Types of charts, Inserting & Modifying charts. File & Print Operations. Linking Worksheets & Workbooks. Creating lists, Using Filters & Subtotals. Recording, running and editing Macros. Data Validation. What-if analysis using Goal seek and scenarios.

TEXT BOOKS

1. Microsoft Office – Complete Reference – BPB Publication
2. Learn Microsoft Office – Russell A. Stultz – BPB Publication

REFERENCES BOOKS

1. Courter, G Marquis (1999). Microsoft Office 2000: Professional Edition. BPB.
2. Koers, D (2001). Microsoft Office XP Fast and Easy. PHI.
3. Nelson, S L and Kelly, J (2002). Office XP: The Complete Reference. Tata McGraw-Hill.

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT - I

Introduction: Characteristics, evolution and generations of computer, Basic Computer Organization: Input and Output Unit, Primary and Secondary storage, CPU: ALU, Control Unit, Classification of computers, Client and server, Number Systems: Binary, Hex, Octal, Decimal numbers, Floating-point Numbers, Computer codes: BCD and EBCDIC codes, ASCII, unicode.

UNIT - II

Input/Output & Storage Units:-Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code Reader, Voice Recognition, Light pen, Touch Screen, Monitors - characteristics and types of monitor -Digital, Analog, Size, Resolution, Refresh Rate, Interlaced / Non Interlaced, Printers& types - Daisy wheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter, Sound Card and Speakers, Storage fundamentals - Secondary Data Storage and Retrieval methods - Sequential, Direct and Index Sequential, Various Storage Devices - Magnetic Tape, Magnetic Disks, Cartridge Tape, Hard Disk Drives, Floppy Disks, CD/DVD flash drives Video Disk , Blue Ray Disc.

UNIT - III

Operating Systems (OS): Definition, System Performance, Process Management, Memory Management, File management, Security, OS capability enhancement software, some popular OS Business data processing: Definitions, Standard methods of organizing data, File management system, Database management system, Multimedia: Components of multimedia, Hardware, Software and Applications

UNIT - IV

Data communications and Computer Networks: Basic elements, Data transmission modes, speed, Transmission media, digital and analog computers, Communication processors, Asynchronous and Synchronous Transmission, Switching techniques, Routing techniques, Network Technologies, network types, Communication Protocols, Internetworking tools, Wireless networks, Distributed computer systems, The Internet: History, Basic services, www, browsers, Service providers, Internet naming and addressing - Information about electronic mail, Remote login, File Transfer, Usenet

TEXT BOOKS

1. Sinha P., Sinha P., "Foundation of Computing", BPB Publication, 1st Edition, 2003 ISBN-81-7656-663-2
2. Brain, K. Williams et. al., Using Information Technology, Third edition, TMH, 2000.

REFERENCE BOOKS

1. Turban, Rainer, Potter, Introduction to Information Technology, second edition, Wiley Publications.
2. Dennis P. Curtin, et. al., Information Technology - The Breaking View, TMH, 2000.
3. Rajaraman V., "Computer Fundamentals" – ISBN 0B- 87692-387-2

PAPER- V PROGRAMMING FUNDAMENTALS

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT-I

Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation.

Techniques of Problem Solving: Flowcharting, algorithms, pseudo code, decision table, Structured programming concepts, Programming methodologies viz. top-down and bottom-up programming. Searching, Sorting, and Merging: Linear & Binary Searching, Bubble, Selection, and Insertion Sorting, Merging.

UNIT-II

Structure of a C Program, C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant.

Input/output: Unformatted & formatted I/O function.

Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators. Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity.

UNIT-III

Control statement in C: Branching - Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

Looping: For, while, and do-while loop, jumps in loops, break, continue statement.

UNIT-III

Functions: Definition, prototype, passing parameters, recursion.

Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.

Arrays: Definition, types, initialization, processing an array

TEXT BOOKS

1. Sinha, P.K. & Sinha, Priti, Computer Fundamentals, BPB
2. Balagurusamy, E., Programming in ANSI C, 4E, Tata McGraw-Hill

REFERENCE BOOKS

1. Dromey, R.G., How to Solve it By Computer, PHI
2. Gottfried, Byron S., Programming with C, Tata McGraw Hill
3. Norton, Peter, Introduction to Computer, McGraw-Hill
4. Leon, Alexis & Leon, Mathews, Introduction to Computers, Leon Tech World
5. Rajaraman, V., Fundamentals of Computers, PHI
6. Ram, B., Computer Fundamentals, Architecture & Organization, New Age International (P) Ltd.

PAPER – I INTRODUCTION TO WEB DESIGNING – I

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features; Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs; Searching and Web-Casting Techniques; Search Engines and Search Tools;

UNIT – II

Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your Web Site; Steps for developing your Site; Choosing the contents; Home Page; Domain Names; Creating a Website and the Markup Languages (HTML, DHTML);

UNIT – III

Web Development: Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts;

UNIT – IV

Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes;

TEXT BOOKS:

1. Raj Kamal, "Internet and Web Technologies", Tata McGraw-Hill.
2. Ramesh Bangia, "Multimedia and Web Technology", Firewall Media.

REFERENCE BOOKS:

1. Thomas A. Powell, "Web Design: The Complete Reference" , 4/e, Tata McGraw-Hill
2. Wendy Willard, "HTML Beginners Guide", Tata McGraw-Hill.
3. Deitel and Goldberg, "Internet and World Wide Web, How to Program", PHI.

PAPER – II RDBMS USING MS-ACCESS

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Database-Data, Information, Records and files. File-based Systems, Limitations of File Based System, Database Approach, Characteristics of database approach.
DBMS functions and Components.

UNIT – II

Relational Model: Relational Model Concepts, Codd's Rules for relational model,
Relational Algebra: Selection and Projection, Set Operation, Renaming, Join and Division.

UNIT – III

Functional Dependencies and Normalization:-Purpose, Data Redundancy and Update anomalies.
Functional Dependencies, Full Functional Dependency, Transitive Functional Dependency,
Decomposition and Normal Forms (1NF, 2NF, 3NF)

UNIT – IV

MS Access: Parts of an Access Window, Tool Bars and Their Icons, Creating a New Database, Creating a Database through Table Wizard, Creating a New Table, Relationships, Creating Table through Design View, Relationship, Query, Forms, Reports, Import/export tables etc.

TEXT BOOKS:

1. Elmasri & Navathe, "Fundamentals of Database Systems", 5/e, Pearson Education.
2. Taxali, R. K., "PC Software for Windows made simple", Tata McGraw Hill.

REFERENCE BOOKS:

1. Thomas Connolly Carolyn Begg, "Database Systems", 3/e, Pearson Education.
2. MS Office XP complete BPB publication.

PAPER – IV INTRODUCTION TO WEB DESIGNING - II

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Brief Introduction to Interactivity tools: CGI; Features of Java; Features of ASP; VBScript; Macromedia Flash; Macromedia Dreamweaver;

UNIT – II

Introduction and Features of Adobe Photoshop; Microsoft FrontPage Introduction; Features; Title Bar; Menu bar; FrontPage Tool Bar; Style, FontFace and Formatting Bar; Scroll Bars;

UNIT – III

Introduction to DHTML and its features; Events; Cascading Style Sheets: Creating Style Sheets; Common Tasks with CSS: Text, Fonts, Margins, Links, Tables, Colors; Marquee; Mouseovers; Filters and Transitions; Adding Links; Adding Tables; Adding Forms; Adding Image and Sound;

UNIT – IV

Extensible Mark-up Language(XML): Introduction; Features; XML Support and Usage; Structure of XML Documents; Structures in XML; Creating Document Type Declarations; Flow Objects; Working with Text and Font; Color and Background properties;

TEXT BOOKS:

1. Raj Kamal, "Internet and Web Technologies", Tata McGraw-Hill.
2. Ramesh Bangia, "Multimedia and Web Technology", Firewall Media.
3. Internet and Web Design, ITLESL Research and Development Wing, Macmillan India.

REFERENCE BOOKS:

1. Thomas A. Powell, "Web Design: The Complete Reference" , 4/e, Tata McGraw-Hill
2. Deitel and Goldberg, "Internet and World Wide Web, How to Program", PHI.

PAPER – V MANAGEMENT INFORMATION SYSTEM

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

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.

UNIT –II

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.

UNIT – III

Developing Information Systems: Analysis & Design of Information Systems: Implementation & Evaluation, Pitfalls in MIS Development.

UNIT – IV

Functional MIS: A Study of Marketing, Personnel, Financial and production MIS, Introduction to e-business systems, ecommerce – technologies, applications, Decision support systems – support systems for planning, control and decision-making

TEXT BOOK:

4. J. Kanter, “Management/Information Systems”, PHI.
5. Gordon B. Davis, M. H. Olson, “Management Information Systems – Conceptual foundations, structure and Development”, McGraw Hill.

REFERENCE BOOK:

1. James A. O'Brien, “Management Information Systems”, Tata McGraw-Hill.
2. James A. Senn, “Analysis & Design of Information Systems”, Second edition, McGraw Hill.
3. Robert G. Murdick & Joel E. Ross & James R. Claggett, “Information Systems for Modern Management”, PHI.
4. Lucas, “Analysis, Design & Implementation of Information System”, McGraw Hill.

PAPER – I MULTIMEDIA TOOLS

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Multimedia: Needs and areas of use, Multimedia elements – Text, Images, Sound, Animation and Video, Making simple multimedia with PowerPoint.

Text – Concepts of plain & formatted text, RTF & HTML texts, using common text preparation tools, Conversion to and from of various text formats, using standard software, Object Linking and Embedding concept, Basics of font design, overview of some fonts editing and designing tools, Understanding & using various text effects.

Images – importance of graphics in multimedia, Vector and Raster graphics, image capturing methods – scanner, digital camera etc., Image file formats – BMP, DIB, EPS, CIF, PEX, PIC, JPG, TGA, PNG and TIF format – their features and limitations, graphic file formats conversions, processing images with common software tools such as Photoshop.

UNIT – II

Sound: Sound and its Attributes, Mono V/s Stereo sound, Sound channels, Sound and its effect in multimedia, Analog V/s Digital sound, Basics of digital sounds-Sampling, Frequency, Sound Depth, Channels, Sound on PC, Sound standards on PC, Capturing and Editing sound on PC, Overview and using some sound recording, editing software. Overview of various sound file formats on PC – WAV, MP3, MP4 etc.

UNIT – II

Animation: Basics of animation, Principle and use of animation in multimedia, Effect of resolutions, pixel depth, Images size on quality and storage. Overview of 2-D and 3-D animation techniques and software- animation pro, 3D studio & Paint Shop pro animator.

Animation on the Web – features and limitations, creating simple animations for the Web using GIF Animator and Flash.

UNIT – III

Video: Basics of Video – Analog and Digital Video, Introduction to graphics accelerator cards, DirectX Introduction to AV/DV and IEEE1394 cards, Digitization of analog video to digital video, Interlacing and non-interlacing, Various video standards – NTSC, PAL, SECAM, HDTV, Introduction to video capturing Media & instrument – Videodisk, DVCAM, Camcorder, Introduction to digital video compression techniques and file formats – AVI, MPEG, MOV Real Video.

UNIT – IV

Multimedia on the Web: Bandwidth relationship, broadband technologies, Text in the web – Dynamic and embedded font technology, Audio on the Web – Real Audio and MP3/MP4, Audio support in HTML, Graphics – HTML safe color palette, Interlaced V/s Non interlaced model, Graphics support in HTML, Image Map, Video on the Web – Streaming video, Real Video, MPEG and SMIL, Virtual Reality on the Web.

TEXT AND REFERENCE BOOKS:

1. Multimedia: Making It Work (4th Edition) – by Tay Vaughan, Tata Mcgraw Hills.
2. Multimedia in Action – James E Shuman – Vikas Publishing House.
3. Multimedia Basics – Volume – 1 Technology, Andreas Holzinger, Firewall Media (Laxmi Publications Pvt. Ltd) New Delhi.

PAPER – II DESKTOP PUBLISHING

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Desktop Publishing: Concept, Need and Applications; Hardware and Software requirements for DTP, An Overview and comparison between DTP packages, Common features of DTP.

Introduction to Page Maker: Features, System Requirements, Components of Page Maker Window, Introduction to Menu and Toolbars, PageMaker Preferences

UNIT – II

Creating of Publications: Starting PageMaker, Setting Page size, Placing the text

Formatting the text: Character Specification

Paragraph setting: Paragraph Specification, Paragraph Rules, Spacing, Indents/Tabs, Define Styles, Hyphenation, Header & Footer, Page Numbering, Saving and Closing publication

UNIT – III

Editing Publication: Open a publication ,Story editor, Find and change the text, Change character and Paragraph attributes ,spell checking ,Selecting text, Cut, Copy, Paste, Paste multiple, Working with columns,

Control palette: Manipulating objects, formatting the text,

Book, Table of Contents, Creating Index, Index entry, Show Index, Print

Working with Graphics: Insert Objects, Paste Special, Linking the graphics, Link the option, Link Information, editing original ,Text wrap, Bring to Front, Send to Back, Reversing the Text.

UNIT – IV

Working with Frame: Introduction, Creating Frames, editing, Frame options, Dialog Box, Text Frame

Working with colors: Introduction, Applying colors, Replacing &removing colours, Editing a color

Working with Table: Setting &creating a new table, Close table, Selecting text, Cell rows & columns Typing, Editing & Formatting text in table, Cutting, Copying & Pasting Information

Setting up Master Pages: Design a Grid, Guiding the Grid, Understanding Master Pages, Rulers options.

TEXT BOOKS:

1. PageMaker-Complete by R. Shamms, Mortier &Rick Wallacl ,Techmedia
2. Learning PageMaker 7 by Ramesh Bangia of Khanna Book Publishing Co Pvt Ltd

PAPER – IV INTRODUCTION TO LINUX

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

Introduction to Linux: Linux distributions, Overview of Linux operating system, Linux architecture, Features of Linux, Accessing Linux system, Starting and shutting down system, Logging in and Logging out. Comparison of Linux with other operating systems.

UNIT – II

Commands in Linux: General-Purpose commands, File oriented commands, directory oriented commands, Communication-oriented commands, process oriented commands, etc.

Regular expressions & Filters in Linux: Simple filters viz. more, wc, diff, sort, uniq, grep. Introducing regular expressions.

UNIT – III

Linux/Unix file system: Linux/Unix files, inodes and structure and file system, file system components, standard file system, file system types.

Processes in Linux: starting and stopping processes, initialization Processes, mechanism of process creation, Job control in linux using at, batch, cron & time.

UNIT – IV

Shell Programming: VI editor, shell variables, I/O in shell, control structures, loops, subprograms, creating & executing shell scripts in linux.

TEXT BOOKS:

1. Yashwant Kanetkar, UNIX & Shell programming – BPB.
2. M.G.Venkateshmurthy, Introduction to UNIX & Shell Programming, Pearson Education.
3. Richard Petersen, The Complete Reference – Linux, McGraw-Hill.

REFERENCE BOOKS:

1. Stephen Prata, Advanced UNIX – A programmer's Guide, SAMS.
2. Sumitabha Das, Your UNIX - The Ultimate Guide, Tata McGraw-Hill.

PAPER – V INTRODUCTION TO .NET

Note: Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of six (objective type/short-answer type) questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. A candidate will be required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions will carry equal marks.

Maximum Marks: 50

External: 40

Internal: 10

Time: 3 hours

UNIT – I

The Framework of .Net: Building blocks of .Net Platform (the CLR, CTS and CLS), Features of .Net, Deploying the .Net Runtime, Architecture of .Net platform, Introduction to namespaces & type distinction. Types & Object in .Net, the evolution of Web development.

UNIT – II

Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes. Introduction to C#: Characteristics of C#, Data types: Value types, reference types, default value, constants, variables, scope of variables, boxing and unboxing.

UNIT – III

Operators and expressions: Arithmetic, relational, logical, bitwise, special operators, evolution of expressions, operator precedence & associativity.
Control constructs in C#: Decision making, loops.
Classes & methods: Class, methods, constructors, destructors, overloading of operators & functions.

UNIT – IV

Inheritance & polymorphism: visibility control, overriding, abstract class & methods, sealed classes & methods, interfaces.
Advanced features of C#: Exception handling & error handling, automatic memory management, Input and output (Directories, Files, and streams).

TEXT BOOKS:

1. Introduction to C# using .NET By Robert J. Oberg, PHI, 2002.
2. Programming in C# By E. Balaguruswamy, Tata McGraw Hill

REFERENCES BOOKS:

1. The Complete Guide to C# Programming by V. P. Jain
2. C# : A Beginner's Guide, Herbert Schildt, Tata McGraw Hill
3. C# and .NET Platform by Andrew Troelsen, Apress, 1st edition, 2001