

BA/BCom/BSc Computer Application

Semester-I (Session 2023-24 Onwards)

Paper Name : COMPUTER FUNDAMENTALS & PC SOFTWARE

Unit – I

Evolution and generations of Computers, Characteristics of computer, Classification of Computer, Modern Computer & its Application; Block diagram and Components of Computer System, Central Processing Unit, Memory Unit, memory hierarchy, Microprocessor; Interconnecting the Units of a Computer, Inside a Computer Cabinet; Start-up Process (Booting), Specification of a Desktop and Laptop currently available in the market (Processor, motherboard, memory, interface & capacity of HDD & DVD drives, I/O ports etc).

Unit – II

Software and Hardware: Meaning and definition of software & hardware, relations between software & hardware, Need & Types of Software: System & Application software; Open source software's concept and examples. hardware- all input devices, all output devices and all other physical parts of the computer. Programming Languages: Machine, Assembly, High Level, 4GLs, Translators: Assemblers, Compilers and Interpreter;

Operating system: Objectives of Operating System, Basic OS functions, resource abstraction, types of operating systems—multiprogramming systems, batch systems, time sharing systems; operating systems for personal computers & workstations, process control & real time systems, Concept of CUI & GUI;

Unit – III

Installation of Windows Operating System, Installation of Printer and Other Software Packages such as Ms Office etc; Backup and Restore Operations. Features of Windows; Various versions of Windows, Windows Accessories.

Features of Word Processor: Create, edit, store, print documents, Navigation of documents, cut, copy & paste, Find & replace, Different Page Views and layouts, Alignment, formatting features, Tabs & Indents, Inserting tables, pictures, hyperlinks, Spell checking, Macros, Mail merge, Template, Wizards, Overview of Index and Tables. Importing and exporting to and from various formats.

Unit – IV

Features of Spreadsheet: Creating, saving, editing, moving around a worksheet, workbook; Inserting, deleting navigation in worksheets, Working with Formula, Cell reference, Functions (Financial, Database, Maths, Trigonometric, Statistical etc); Creating, editing, selecting and naming range. Format Feature, Changing alignment, Character styles, Date Format, Border & Colors etc. Previewing & Printing a worksheet, Pivot Table, Creating Charts & Graphs.

PowerPoint Presentation Package: Creating Presentation, Different presentation templates, Setting backgrounds, layouts, Customizing, Formatting a presentation, Adding Graphics and effects to the presentation.

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Suggested Readings

1. Computer Fundamental By P.K. Sinha (BPB Publications)
2. Upgrading and Repairing PCs By Scott and Mueller, Techmedia, New Delhi
3. Rapidex MS Office By Vikas Gupta (Pustak Mahal)
4. Absolute Beginners Guide to Computer Basics By Miller M, Pearson Education.
5. Fundamentals of Computers By Balagurusamy E, Tata McGraw-Hill By Wiley INDIA

Examination Scheme (2023-24) Semester I

Type	Name of Paper	Duration of Examination	Maximum Marks)	Minimum Marks	Credit
Theory	Computer Fundamentals & Pc Software	EoSE-3 Hr	100 Marks	40 marks	4
Practical	Computer Fundamentals & Pc Software Lab	EoSE-3 Hr	50 Marks	20 Marks	2

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BA/BCom/BSc Computer Application Semester-II

Paper Name : Programming with C

Unit-I

Basic concepts of programming: Characteristic & Implementation of Algorithm, Flow Chart Symbols, Benefit and Limitations; Decision Table, Pseudo Code. Programming Techniques: Top down, Bottom up, Modular, Structured, Features, Merits, Demerits and their Comparative study.

Unit-II

Structure of C Program; Character Set, Tokens, Variable, Constant; Data Types; Operator, Expressions, Type Conversions; Console Input-Output functions; Control Flow Statements and Blocks, Branching statements and Labels.

Unit-III

Loop Structure: While, Do while, For, Modular programming: Basic types of function, Declaration and definition, Function call, Parameter passing, Recursion, Scope of variables. Arrays: Declaration and use of Array, Array manipulation; Searching, Insertion, Deletion of an element, Strings as array of characters, Standard library string functions.

Unit-IV

Pointer: Declaring & Initializing pointers, Accessing a variable and address of a variable, Pointer expressions, Pointers and Function Arguments, Pointers and Arrays. Structure, Union: Declaration and use. Programs to show the use of structure, union; Concept of Files; Basic Functions for File Handling, Basic Input/Output operations on files.

Suggested Readings

1. Programming In C By Gottfried (Tata McGraw Hill)
2. C Programming Language By Kernighan (Prentice Hall Of India)
3. C Programming By R.B. Patel, Khanna Publication.
4. Let Us C By Yashwant Kanetkar (BPB Publication)

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Examination Scheme (2023-24)
Semester II

Type	Name of Paper	Duration of Examination	Maximum Marks	Minimum Marks	Credit
Theory	Programming with C	EoSE-3 Hr	100 Marks	40 Marks	4
Practical	Programming with C Lab	EoSE-3 Hr	50 Marks	20 Marks	2

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