

SYLLABUS

Panjab University, Chandigarh

BCA 1st Semester

Computer Fundamentals and Computing Software

L T P Cr External Marks : 65

6 -- 3 Internal Marks : 10

Time Duration: 3 Hrs.

Number of Lectures : 60

Objectives : The objective of this course is to familiarize students with complete Fundamentals and the carriers commonly used computing software.

- Note :**
- i. The Question Paper will consist of Four Units.
 - ii. Examiner will set total of NINE questions comprising TWO questions from each Unit and ONE compulsory question of short answer type covering whole syllabi.
 - iii. The students are required to attempt ONE question from each Unit and the Compulsory question.
 - iv. All questions carry equal marks unless specified.

UNIT - I

Computer Appreciation : Introduction to computers, characteristics of computer; History of computers; Classification of computers on size: (Micro, Mini, Mainframe and super computers), Working Principles, Generations; Applications of computers; commonly used terms—Hardware, Software, Firmware. Basic Computer Organization: Block diagram of computer system, Input unit, Processing Unit and Output Unit; Description of Computer input devices: Keyboard, Mouse, Trackball, Pen, Touch screens, Scanner, Digital Camera; Output devices: Monitors, Printers, Plotters.

Computer Memory : Representation of information: BIT, BYTE, Memory, Memory size; Units of measurement of storage; Main memory: Storage evaluation criteria, main memory organization, RAM, ROM, PROM, EPROM; Secondary storage devices: Sequential Access Memory, Direct Access Memory Magnetic Tapes, Magnetic disks, Optical disks: CD, DVD; Memory storage devices: Flash Drive, Memory card;

Types of software : System and Application software; Programming Languages: Generation of Languages; Translators - Interpreters, Compilers, Assemblers and their comparison.

UNIT - II

Understanding Operating System using DOS : Introduction to operating systems and its functions, DOS and versions of DOS, Booting sequence; Warm and Cold Boot; Concepts of files and directories, Redirecting command input and output using pipes, Wildcard characters, Types of DOS commands: Internal and External; Internal Commands: DIR, MD, CD, CLS, COPY, DATE, DEL, PATH, PROMPT, REN, RD, TIME, TYPE, VER, VOL; External Commands:

XCOPY, ATTRIB, BACKUP, RESTORE, FIND, SYS, FORMAT, CHKDSK, DISKCOPY, LABEL, MOVE, TREE, DELTREE, DEFRAG, SCANDISK, UNDELETE.

Batch Files : Introduction to simple batch files; Introduction to CONFIG.SYS and AUTOEXEC.BAT files.

Understanding Graphical User Interface using Windows : Fundamentals of Windows, Types of Windows, Anatomy of windows, Icons, Recycle bin, Operations on Folders,

Registry of Windows : Basics, Editing; Control panel.

UNIT – III

Word Processing Package : Opening, saving and closing an existing document; renaming and deleting files; Using styles and templates: Introduction to templates and styles; applying, modifying and creating new (custom) styles; using a template to create a document, creating a template, editing a template, organizing templates, examples of style use, Changing document views, Moving quickly through a document, Working with text: select, cut, copy, paste, find and replace, inserting special characters, setting tab stops and indents, Checking spelling and Grammar, Autocorrect, Using built-in language tools, word completion,

Autotext, Formatting text : Using Styles, formatting paragraphs, formatting characters, autoformatting, creating lists; Formatting pages : Using layout methods, creating headers and footers, Numbering pages, Changing page margins, Adding comments to a document, Creating a table of contents, Creating indexes and bibliographies, Printing a document, Using mail merge, Tracking changes to a document, Using fields, Linking to another part of a document, Using master documents, Creating fill-in forms.

UNIT – IV

Spreadsheet Package : Introduction to Spreadsheets, sheets and cells; Opening and saving spreadsheet files; Working with sheets: inserting new sheet, deleting and renaming sheets, Viewing a spreadsheet: freezing rows and columns, splitting screen, Entering data: cell referencing, formatting cells, entering numbers, entering numbers as text, entering formulae, entering date and time, deactivating automatic changes, Speeding up data entry: using fill tool, fill series, defining fill series, Validating cell contents, Formatting data: formatting text, numbers, cells, Autoformatting cells and sheets; defining new autoformat, Using conditional formatting, Hiding and showing data, Sorting records, Printing a spreadsheet document : using print ranges, page formats, inserting page breaks, headers and footers; Working with Graphs and Charts : Creating Embedded Chart, formatting chart: Changing chart types, adding Titles, Legends and Gridlines, Printing Charts; Adding database functions: defining database ranges, sorting, filtering and grouping database ranges; Evaluating data: using DataPilot; Functions and Macros: using and editing existing macro, Creating Macros, Recording Macros, Running Macros.

Presentation Packages : Basics of creating a presentation, Parts of main window, workspace views, creating a presentation, Incorporation of Animation.

Note : Any word processing, spreadsheet and presentation package may be used. Focus should be on open source software's.