

Elementary Computer Applications

Effective from session 2010-11

The examination shall consist of a multiple choice based question paper with total 100 questions. 50 questions shall be set from section-A to test candidates theoretical understanding of basic concepts and another 50 questions will be set from section-B to test candidates practical knowledge. Each correct answer will be given 1 marks each and each wrong answer will be awarded zero marks. No negative marking. Candidates will be required to undergo practical training in the college concerned on the topics mentioned under section-B. No separate practical examination will be conducted

Max. Marks=100. Minimum pass marks=36 Time: 3hrs

Theoretical Concepts (Section A)

Lectures: 30 hrs

1. Information Concepts and Processing :

Definition of Information, need quality and value of information, categories of Information in business organization level of information, storage and retrieval of data, comparison of manual and electronic storage of data, Organization of data as files, data processing in government, large business, multinational and private organization.

2. Elements of Computer Processing System :

Electronic digital computer, the number system (binary, digital, octal and hexadecimal and their inter conversions), character code (ASCII and EBCDIC), concept of hardware and software, the architecture of a computer system, CPU, memory and input/output devices, magnetic storage devices, optical devices, printers and monitors, categories of software, packages.

3. Classification of computers and generation of computers: Classification, generations, categories, parallel processing and Component, RISC and CISC machine, development of Intel family processors.

4. Operating System Concept:

The need of an OS (operating System), OS as resource, processor and memory manager, the various types of operating system, MS-DOS, MS Windows, UNIX Operating System

5. Computer and Communication :

Need for data transmission over distances, communication channels, twisted pair, coaxial cable, microwave, radio wave, optical fiber and satellite, digital and analog transmission, serial and parallel data transmission, Modems, networking of computers, LAN, WAN concepts.

6. Programming Languages :

Machine assembly and high level languages, generation of languages, 3 GL and 4 GL languages, Graphic User Interfaces.

7. E-Commerce :

What is E-commerce and growth of e-commerce, electronic payment systems, security considerations, digital currencies, credit cards, cyber cash, e- cash, smart cards, supply chain management.

8. System Configuration: Brief understanding of recent processors, memories, mother boards and input output devices used in desktops. Understanding main specifications of a Desktop PC.

Section B

Practical classes

(Following topics must be covered in the practical classes)

1. Working with OS:

Overview of important DOS commands, MS Windows Installation, scandisk, Control panel. Taskbar, Toolbars, Display, Settings. (Background, Wallpaper. Screensaver, Desktop Themes). Files and Folders Management. Window Explorer, Finding Files and Folders, Formatting Disks and Copying Files, Printers Settings, Modem Installation. Mouse Installation, Adding and Removing Programs, Active Desktop Concepts, Winzip and its Application, Norton Anti Virus and its use. Use of Calculator Paintbrush, winamp, MPEG Player and Windows Help.

2. Word Processing Software : MS Word , Entering, Editing and Formatting Text, Documents Formats, (page size and orientation, headers and footers, Columns And sections, Page Layout), spelling and grammar checkers, Thesaurus, find the replace, cut and Paste, Tables and Formatting Tables, Mail Merge, styles and templates.

3. Spreadsheet Software: MS- Excel Entering data, labels, values, Dates, formulas, Cell References , formats, Functions. Templates, Charts and Maps, Analyzing data in a spread sheet.

4. Presentation Software: MS Power Point

- Presentation Packages: Slide Creation, Slide shows, Adding Graphics for Matting, customizing and printing.
- Use of Presentation software – Selecting background and design template. Arranging slides schematically. Changing Sequence of slides. Inserting tables, Charts animation and pictures in presentation.

- 5. Internet :**How the Internet work. Introduction to TCP/IP and DNS address. Features of the Internet (e-mail, news, talent , FTP. Chart, Channel, WWW, web 2.0 tools (blogs, social networks, IP TV etc.), Connecting to a PC to the Internet (settings dial up and Internet connection Wizard), Web browser (Internet Explorer) and features therein, use of search engines, surfing, creating and use of E-mail (each student must create their own e-mail account),creating web pages.

Text Book:

1. V.K.Jain, "Computer Fundamentals:
2. V. Rajaraman: Fundamentals of Computers