

**Computer Application Exam. 2014**  
**B.A./B.Com./B.Sc.- (Part-I)**  
**(Optional Paper)**

Scheme:

		Arts, Comm / Science	
		Min. Pass Marks	Max. Marks
Paper –I	3 hrs. Duration	Theory: 47/54	Theory: 130/150
Paper –II	3 hrs. Duration	Practical : 25/27	Practical : 70/75
Practical	4 hrs. Duration		65/75 Marks
			65/75 Marks
			70/75 Marks

**Paper I : Computer Fundamentals and Operating System**

Duration- 3 hrs.

Max. Marks: 65(Arts/Comm.)/75(Science) Marks

Note: Total ten questions are to be set, taking two questions from each unit. Students are required to attempt five questions taking one question from each unit.

***Unit – 1***

Computer definition, uses of computers in modern society e.g. weather forecasting, concus oil exploration, speech recognition, banking, publishing, accounting, research etc.

Information concept and processing-evaluation of information processing data, information, language and communication.

Computers arithmetic and number systems ASCII, EBCDIC character sets.

***Unit – 2***

Element of a computer processing system-hardware, software, computer capabilities and limitations, Concepts of file and directories.

Hardware features and use – CPU, I/O devices, Storage devices and media.

***Unit – 3***

Introduction to networking, multiprocessing, time sharing, Multitasking and real time computing.

Variety of hardware systems and features, Various types of computers available in market, Micro, mini and main frames, Supercomputers.

Introduction to various categories of softwares, Operating System and its function, Interaction of operating system with reference to DOS, Single user operating System, Memory Management.

***Unit – 4***

File management, Directory structure in DOS, Moving, renaming, copying, deleting and undeleting files under DOS, Devices management, Control of various devices, Device drivers, interrupt driven and poll driven data transfers, Need of software and hardware protocols.

BIOS, DOS, DOS internal and external commands, Use of DOS commands, Taking and restoring backups, interrupts.

***Unit – 5***

Multi user, Multitasking, Multiprocessing and real time operating systems, Introduction to Memory Management techniques.

File systems, File management, Process management and scheduling, Special requirements and facilities for multiprocessing environment, Examples of Multiprocessing operating systems, Introduction to Unix, User management in Unix commands.

# **Paper II : Introduction to IBM and Business Data Processing**

Duration-3 hrs.

Max. Marks: 65(Arts/Comm.)/75(Science) Marks

Note: Total ten questions are to be set, taking two questions from each unit. Students are required to attempt five questions taking one question from each unit.

## ***Unit – 1***

Evolution of personnel computers. Introduction level microprocessors, Intel Zilog Chips and their advancement, IBM PC basic block diagram of computer, Difference between personal and main Frame, simple operating system, Easy to use, less memory, dedicated, Normally single user. Introduction to microprocessor and associated components. Timers display controllers, DMA controllers.

Block diagram of IBM PC, introduction to 8086 and 8088, Functional description of various modules and cards, Boot process in IBM PC system files

## ***Unit – 2***

Various types of displays and other peripherals Used in IBM PCs.

Disk operating system – Introduction, Batch files, Config files, EXE, SYS, BIN, TXT files, Introduction to programming in BASIC, Development of Programs in QBASIC, Use of graphics facilities using Basic.

Diagnostics for IBM PC, Use of norton utilities and other packages for undeleting a file and other system maintenance jobs.

Advanced version of IBM PC and compatibles.

## ***Unit – 3***

**Introduction to data processing:** records and file data collection, preparation, verification, editing and checking.

Overview of business function. Use of computer system for business application.

## ***Unit – 4***

Spread sheets, Macros, Use of spread sheets in business. Business files, Introduction of data structure elements, fields, Records and files, Classification of files, master files, Transaction files.

## ***Unit – 5***

**Distributed processing:** various facilities for business computing introduction of data base.

## **PRACTICAL**

Visit to computer lab. Introduction to various components of a computer. A simple documentation preparation and printing through printer.

Development of a batch file to install a software from floppy to disk Development of a bath file to manage various packages on the disk, Detection of viruses and protection of IBM PC using shell scripts for processing data.

Creation of shell script to manage disk on a unix system. Creation of shell scripts to manage mail using shell scripts for processing data.

Physical inspection of IBM PC and internal cards, introduction to nomenclature (COM1,COM2 etc.), writing batch files for various purposes, Modifying config.sys.files,creating RAM disk, Diagnostics on IBM PC.

Controlling PC hardware using basic programs.

Analysis of business system on paper.

Using spread sheets for payroll. Balance sheets and other business.