

[This question paper contains 4 printed pages.]

353

Your Roll No.

B.A. Prog./I

E

COMPUTER APPLICATIONS

**Paper-CS-I-Computer Fundamentals
and Software Packages**

(Admissions of 2004 and onwards)

Time : 3 Hours

Maximum Marks : 45

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

Part A is compulsory.

Attempt any two questions from Part.B.

Attempt all parts of a question together.

Part A

1. (a) Describe the characteristics of third generation computers. (2)
- (b) Differentiate between:
 - (i) RAM and ROM
 - (ii) Impact and Non Impact printers. (3)
- (c) What are registers? Explain the functions of MAR. (2)

P.T.O.

- (d) Describe the various steps in an instruction cycle. (2)
- (e) What are bar code readers? (1)
- (f) What do you understand by kinematics? (1)
- (g) Name any two devices required for virtual reality. (1)
- (h) Describe briefly the following:
- (i) DMA
 - (ii) Time sharing operating system (3)

Part B

2. (a) Explain the various types of system buses. (3)
- (b) Convert as directed :
- (i) $(637.21)_{10}$ to binary
 - (ii) $(100111101.1101)_2$ to hexadecimal
 - (iii) Convert $(445.2)_8$ to decimal
 - (iv) Convert $(AD3.1F)_{16}$ to binary (4)
- (c) Draw the block diagram of a computer system. Explain briefly the various components. (3)
- (d) What do you understand by ports? Describe any four kinds of ports. (3)
- (e) Explain the purpose of BIOS in a computer. (2)

3. (a) Describe the working of dot Matrix Printer. (2)
- (b) Differentiate between Raster Scan Display and Random Scan Display. (2)
- (c) List the advantages of magneto optical disk. (1)
- (d) Explain the FCFS method of scheduling the processes. (2)
- (e) How is the data organized on the magnetic disk? Explain. (3)
- (f) Explain the functions of an Operating System. (3)
- (g) What is application software? Give two examples. (2)
4. (a) Differentiate between Virus, Worm and Trojan Horse. (3)
- (b) What do you understand by "Software Piracy"? List any two ways to prevent software Piracy. (2)
- (c) Explain any two security threats for data stored in a computer. (2)
- (d) List the main characteristics of a super computer. (1)
- (e) Differentiate between Lossy and lossless compression. (1)

- (f) What do you understand by virtual memory? (1)
- (g) Describe the paging technique to allocate memory space by the operating system. (2)
- (h) What are the functions of the following cards:
- (i) Network Interface Card
 - (ii) Modem
 - (iii) Sound Card (3)
5. (a) What is multimedia? Explain the various components of multimedia. (3)
- (b) Differentiate between compiler and interpreter. (2)
- (c) Explain the various types of ROM available. (2)
- (d) Give the full forms for:
- (i) LCD
 - (ii) DVD-ROM (1)
- (e) Write short notes on:
- (i) Firewall
 - (ii) Cryptography (3)
- (f) Describe briefly the following terms:
- (i) Open source software
 - (ii) Firmware (2)
- (g) What are the conditions necessary for a deadlock to occur? (2)