

14/12/19E

This question paper contains 4 printed pages.

Your Roll No.

Sl. No. of Ques. Paper : 8636 J
Unique Paper Code : 62341101
Name of Paper : Computer Fundamentals
Name of Course : B.A. (Prog.) Computer Applications
Semester : I
Duration : 3 hours
Maximum Marks : 75

Attempt all the parts of Question No. 1.

Attempt any five questions from Question No. 2 to Question No. 8. All parts of a question should be answered together.

SECTION A

Attempt all the parts.

1. (a) Write the full forms of :

(i) MICR

(ii) FLOPS

(iii) EEPROM

(iv) OMR

4

(b) Convert the binary number 011011 into the following representations :

(i) 1's complement

(ii) 2's complement

2

P.T.O.

- (c) Differentiate between volatile memory and non volatile memory. Give examples of each. 2
- (d) Briefly explain the working of the following registers :
 (i) PC
 (ii) MBR 4
- (e) Add $(01010)_2$ to $(10000)_2$. 2
- (f) Define the following :
 (i) Multiprogramming.
 (ii) Cache memory. 4
- (g) What is application software? Explain giving example. 3
- (h) Arrange the memories in increasing order of their speed :
 Register, RAM, Hard Disk, Magnetic Tape 2
- (i) Convert the following numbers to binary numbers :
 (i) $(1694)_{10}$
 (ii) $(135)_8$ 2

SECTION B

Attempt any five questions.

2. (a) What are Point-and-Draw devices? Explain any two with examples. 6
 (b) What is RAM? Briefly describe the two types of RAM. 4
3. (a) Differentiate between :
 (i) Dot Matrix and Inkjet Printers

- (ii) Direct access and Sequential access.
 (iii) Minicomputer and Supercomputer. 6
- (b) What are Magnetic tapes? How is the data stored on them? 4
4. (a) What do you understand by Timesharing? What are its advantages? 4
 (b) Define operating system. What are its functions? 6
5. Write short notes on :
 (i) Cloud computing
 (ii) ROM
 (iii) Microcomputers
 (iv) Flash Drive
 (v) Mouse 2×5
6. (a) What are the components of computer hardware? Describe functions of each component with the help of a diagram. 6
 (b) Define a Bus. What are the different types of buses? 4
7. (a) Subtract the following using complementary method :
 (i) $(110111)_2 - (0100100)_2$
 (ii) $(1100)_2 - (1011)_2$ 4
 (b) What is an optical disk? Explain the working of an optical disk. 6
8. (a) Explain briefly the use of computers in the following areas :

(i) Advertising

(ii) Medicine

(iii) Home.

6

- (b) What do you understand by base of a number in a number system? Give an example to illustrate the role of base in positional number system.

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