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

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(c) Differentiate between volatile memory and non-volatile memory. Give examples of each.

(d) Briefly explain the working of the following registers :

    (i) PC

    (ii) MBR

(e) Add $(01010)_2$ to $(10000)_2$.

(f) Define the following :

    (i) Multiprogramming.

    (ii) Cache memory.

(g) What is application software? Explain giving example.

(h) Arrange the memories in increasing order of their speed :

Register, RAM, Hard Disk, Magnetic Tape

(i) Convert the following numbers to binary numbers :

    (i) $(1694)_{10}$

    (ii) $(135)_8$

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

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(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 :

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(i) Advertising

(ii) Medicine

(iii) Home.

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