

2 0 1 8*Full Marks : 75**Time : 3 hours**The questions are of equal value*

Answer **five** questions, selecting at least **one** from each Group

Group—A

1. Sketch the block diagram of computer. Discuss the basic organization of computer system and explain the function of various units of a computer system.

✓ 2. Explain the various generations of computer.

3. What do you mean by memory organization? What are its advantages? How is PROM different from EPROM ?

4. (a) Explain the term ASCII and EBCDIC codes.

(b) Perform the following conversions :

(i) Convert binary 00011011 to decimal

(2)

(ii) Convert decimal 278 to binary

(iii) Convert 19B116 to binary.

5. What do you mean by programming language? Describe machine, assembly and high-level language with its merits and demerits.

Group—B

6. What is array? How can you create an array using 'C' programming language? Explain with example.

7. What do you mean by structured programming? Explain top-down and bottom-up approaches of structured programming.

8. What are the different types of operators available in 'C' programming language? Explain with suitable example.

9. (a) To print a triangle of star (*) using loop like

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      *
     * * *
    * * * * *
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using 'C' programming language.

(3)

(b) Explain the concept of call by value and call by reference parameters with examples.

Group—C

- 10.** Explain the difference between RISC and CISC characteristics.
- 11.** Discuss the evolution of microprocessor. Draw the architecture of INTEL 8086 microprocessor.
- 12.** Write short notes on *any three* of the following :
- (a) IBM-PC
 - (b) Register
 - (c) Arithmetic coprocessor
 - (d) VGA controller
 - (e) Clocks.
