

2016*Time : 3 hours**Full Marks : 75*

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions, selecting at least one from each group.

Group – A

- ✓ 1. What do you mean by central processing unit ? Describe in details about the various units of central processing unit with diagram.
2. What are the types of memories available in the computer system ? How are they organised in th hierarchy ? Explain with purpose.
3. What is the purpose of the binary coding system ? Briefly explain the term ASCII and EBCIDIC.
4. What do you mean by operating system ? What are the different types of operating system ? Elaborate it.
- ✓ 5. Explain about the term network topology. What are the different types of network topologies ? Explain it.

Group - B

6. (a) Who developed C language ? Describe about the features of C language.
- (b) What are the different types of operators available in C ? Mention the operand and types they work with.
7. (a) What is the syntax of the if-else statement ? Draw its control flow-diagram.
- (b) Write a program to find the sum of the first N natural number using a for loop.
8. What is a function ? How it is declared in C ? Explain the concept of call-by-value and call-by-reference parameters.
9. What are pointers ? What is the function of a pointer variable ? What are its uses ?

Group - C

10. What is DMA controller ? Explain the basic direct memory access (DMA) operation for transfer of data bytes between memory and peripherals.
11. Sketch the block diagram of IBM-PC and explain its characteristics. What is the difference between PC, PC-XT and PC-AT.
12. Explain the following (any three)
- (a) VGA controller
 - (b) Arithmetic co-processor
 - (c) Clocks
 - (d) Microprocessor