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, in which question no 1 is compulsory.*

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

2. What do you understand by central processing unit ? Describe in details the various units of CPU with diagram.

3. Why primary memory unit is volatile whereas secondary memory unit is non-volatile ? Explain with reasons.

4. (a) What is the purpose of the binary coading system ? Briefly explain the term ASCII and EBCDIC.

   (b) Perform the following conversion :
   (i) convert binary 00011011 to decimal
   (ii) convert decimal 278 to binary
   (iii) convert 19B116 to binary

5. (a) Draw the block diagram of DMA controller. Explain its operation.

   (b) Define and differentiate between RISC and CISC processor.

6. Wjhat do you mean by programming language ? Describe machine, assembly and high level language with its merits and demerits.

7. Differentiate between the following (any **two**) :
   (a) Impact and non-impact printer
   (b) Centralised and distributed data processing
   (c) Real time and time sharing processing

8. (a) What is MS-DOS ? Why the commands of MSDOS devided into external and internal. Explain with reason.

   (b) Write the type, purpose and syntax of the following command :
   (i) Copy (ii) Format (iii) Diskcopy (iv) Erase (v) Tree

9. (a) What do you mean by flow-chart and algorithms ? What are the different symbols are used in flow chart.

   (b) Write an algorithm and sketch the flow chart to sum the squares and cubes of the odd numbers between 1 to 100.

10. Write short notes on any **two** of the following :

   (a) Management information system

   (b) Batch processing

   (c) Batch file and configuration file

   (d) Need of structural programming

   (e) Eelectronic mail

————×————