

2017

TIME: 3 HOURS

FULL MARKS: 70

Group – A

(Compulsory)

1. [A] Choose the correct answer of the following: 1 x 5 = 5
- a. The bulk of the binary information in a digital computer is stored in the memory, but all computations are done in:
 - i. Timing Control
 - ii. Memory Registers
 - iii. Process Registers
 - iv. Program Control
 - b. The registers found in the processor unit are:
 - i. Operational registers
 - ii. Memory registers
 - iii. Storage registers
 - iv. Binary registers
 - c. The processor, and I/O devices are interconnected by means of a common bus.
 - i. Cache Memory
 - ii. Auxiliary Memory
 - iii. Virtual Memory
 - iv. Main Memory
 - d. What digit is added to the Excess-3 code generation?
 - i. 4
 - ii. 3
 - iii. 2
 - iv. 1
 - e. The CPU nearly delay its operation for one memory cycle, to allow direct memory I/O transfer. This process is called:
 - i. Burst transfer
 - ii. Cycle waiting

- iii. Cycle stealing
- iv. Cycle interrupting

[B] State **True** or **False**:

1 x 5 = 5

- I. The word bit is the short form of Binary Digit.
- II. The type of PROM that can be erased electrically is called EPROM
- III. Primary memory is usually referred to as RAM.
- IV. Cache memory is placed in between the CPU and ROM.
- V. ROM is a volatile memory.

[C] Fill in the blanks:

1x5=5

- I. The full form of ISAM is.....
- II. Cache memory is used in a computer system to.....
- III. Througha computer transfers data.
- IV. A memory that requires refreshing data is.....
- V.printer is also called as a page printer.

Group – B

Answer any **five** questions of the following:

4 x 5 =20

- 2. What is the function of computer memory?
- 3. What is DMA? Explain.
- 4. What is parallel processing? Explain.
- 5. What is vector processing? Explain.
- 6. What is pipelining in computer? Explain.
- 7. What is Register? Explain General Purpose Register of 8086.
- 8. What is the purpose of flag register in microprocessor? Explain with suitable example.
- 9. What is Real Memory and Virtual Memory?

Group – C

Answer any **five** questions of the following:

7 x 5 = 35

10. Draw and explain the block diagram of digital computer.
11. What are main, secondary and back up memories?
12. What are the various types of ROM? Explain each one in detail.
13. Discuss RS-232C and RS-422A standards for serial data transfer.
14. What is interrupt controller? Explain with suitable diagram.
15. What is optical disk? Discuss their advantages and disadvantages as compared to magnetic disks.
16. Differentiate between synchronous and asynchronous data transfer mode.
17. Explain Addressing modes of 8086 microprocessor.

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