

Register No.:

**1407**

**October 2024**

***Time – Three hours  
(Maximum Marks: 100)***

- [N.B.]**
1. Answer all questions under Part-A. Each question carries 3 marks.
  2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

**PART – A**

1. Define control function.
2. List the characteristics of RISC.
3. Define asynchronous data transfer.
4. Define direct memory access (DMA).
5. Differentiate ROM with RAM.
6. Differentiate virtual address with physical address.
7. Write the purpose of instruction pointer.
8. Define pipelining.
9. Give the characteristics of SMP processor.
10. List the advantages of multi-core processing.

[Turn over.....

PART – B

11. (a) Illustrate the general register organization of a CPU with block diagram.

(Or)

(b) Discuss about hardwired and micro-programmed control unit.

12. (a) Illustrate the strobe control data transfer with a diagram.

(Or)

(b) Explain about the programmed I/O.

13. (a) Discuss about the various types of secondary memory.

(Or)

(b) Explain the operational principle of cache memory.

14. (a) Explain the architecture of 8086 microprocessor with a neat block diagram.

(Or)

(b) Discuss about the RISC pipelining and super pipelining.

15. (a) Describe about the implicit multi-threading and explicit multi-threading.

(Or)

(b) Explain about the NUMA organizations.

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