

Register No.:

594

October 2023

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. What is the use of binary incrementer?
2. What are the characteristics of CISC?
3. Define asynchronous data transfer.
4. Define vectored interrupt.
5. Define ROM. What are the types of ROM?
6. What is the need of cache memory?
7. Mention the importance of the instruction queue in 8086 processor.
8. What is arithmetic pipelining?
9. What is a thread?
10. Distinguish a user level thread from a kernel level thread.

[Turn over.....

PART - B

11. (a) (i) Explain bus transfer.(7)
(ii) With neat diagram, explain binary adder-subtractor. (7)
(Or)
- (b) Explain hardwired and micro-programmed control unit.
12. (a) Explain handshaking method of data transfer.
(Or)
- (b) Explain the function of DMA controller with block diagram.
13. (a) Explain about main memory.
(Or)
- (b) (i) Explain the operational principle of cache memory. (7)
(ii) Discuss in detail about memory address map. (7)
14. (a) Explain the block diagram of 8086 architecture.
(Or)
- (b) Explain the various stages of instruction pipeline with block diagram.
15. (a) Explain the organization of a symmetric multiprocessor system with a neat block diagram.
(Or)
- (b) Explain the organization and features of i7 processor.
