Register No.: _____

November 2022

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 a binary adder?

2. What are the various components of a CPU?

3. Define asynchronous data transfer.

4. Define vectored interrupt.

5. What are the types of CPU register?

6. What is virtual memory?

7. Mention the importance of the instruction queue in 8086 processor.

8. What is pipe line?

9. What is the use of system control element in SMP mainframe?

10. What is a NUMA system?

[Turn over.....

PART – B

11. (a) (i) Explain bus transfer.
       (ii) Explain the fetch cycle in detail.

   (Or)

   (b) Explain the architecture of CISC with a neat block diagram.

12. (a) Explain strobe control data transfer in detail.

   (Or)

   (b) Explain the function of DMA transfer with block diagram.

13. (a) Explain in detail about main memory.

   (Or)

   (b) Explain about ROM and RAM chip with a diagram.

14. (a) Explain the types of parallel processor.

   (Or)

   (b) (i) Write about super scalar processor.
       (ii) Explain SIMD array processor with neat block diagram.

15. (a) Explain CC–NUMA organization and operation with block diagram.

   (Or)

   (b) With neat block diagram, explain the organization of i7 processor and list down its features.