

307

Register No.:

April 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. What is Register Transfer Language?
2. Draw the 4 bit combinational circuit shifter.
3. Write the difference between I/O Bus and memory bus.
4. Compare Serial and Parallel communication.
5. Draw the memory hierarchy diagram.
6. What is meant by writing into cache?
7. Mention the importance of the instruction queue in 8086 processor.
8. What is pipeline?
9. Define NUMA.
10. What is Explicit multi-threading?

[Turn over...

PART - B

11. A) Explain various addressing modes used in CPU.
(Or)
B) Explain the functions of control unit and draw its structure.
12. A) Explain strobe control data transfer.
(Or)
B) Explain DMA controller and DMA transfer.
13. A) Explain about main memory.
(Or)
B) Explain about Virtual memory concept.
14. A) Explain about the types of parallel processing systems.
(Or)
B) (i) Write about super scalar processor. (7)
(ii) Explain SIMD array processor with neat block diagram. (7)
15. A) Draw Symmetric Multiprocessors (SMP) organization diagram and explain.
(Or)
B) Explain the organization and features of multi-core processor.
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