M.Sc. DEGREE EXAMINATION,APRIL 2020
I Year I Semester
Computer Architecture

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. Convert the following decimal to binary a)1231 b) 673
2. What is high impedance gate?
3. What is memory stack?
4. When to use pipelining technique?
5. Name some of the peripherals used in a unit.
6. Define handshaking.
7. Expand RAD.
8. Write about block transfer.
9. What is the difference between access time and access rate?
10. Write the types of semiconductor memory.
11. What is the use of magnetic tapes?
12. What is a control word?

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. State different micro operations with variables.
14. What are the types of CPU organisation?
15. Draw and explain one stage decimal arithmetic unit.
16. Explain daisy chaining priority.
17. Write about any two algorithms for non-pre-emptive allocation of variable length blocks.
18. Discuss about types of interrupts.
19. What are associative mapping? When it is used?

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Differentiate between direct and indirect addressing instruction. Draw the instruction word format indicating the number of bits.
21. Explain about RISC pipeline in detail.
22. Write about the booth multiplication with example.
23. Write in detail about computer with I/O processor.
24. Write short notes about memory hierarchies in detail.

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