B.C.A. DEGREE EXAMINATION,APRIL 2020
II Year IV Semester
Computer Architecture

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

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

Answer any **TEN** questions

1. What are micro operations?
2. Define control memory.
3. Give one example for floating point and fixed point datatype.
4. What is array processor?
5. State the advantages of stack organization.
6. Define signed magnitude.
7. State any two importance of DMA.
8. Define interrupt.
9. List out functions of auxiliary memory.
10. Define bootstrap loader?
11. What are the major requirements of I/O Module?
12. What is the need of peripheral devices?

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

Answer any **FIVE** questions

13. What are the advantages and disadvantages of micro programmed control?
14. What is meant by RISC? Discuss the significance of RISC pipeline.
15. List and explain different addressing modes with suitable example.
16. Write an algorithm for floating point addition of two numbers.
17. What is TLB? Explain its working.
18. Differentiate between SRAM and DRAM.
19. Explain about register transfer logic with an example.

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

Answer any **THREE** questions

20. Explain arithmetic, logic and shift micro operation with an example.
21. Describe register organization within the CPU.
22. Multiply (-5) and (2) using Booth's algorithm
23. Compare and contrast between interrupt driven I/O, DMA and Programmed I/O.
24. Explain various cache mapping techniques.

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