

**B.C.A. DEGREE EXAMINATION, NOVEMBER 2018**  
**II Year IV Semester**  
**Core Major- Paper VI**  
**COMPUTER ARCHITECTURE**

**Time : 3 Hours**

**Max.marks :75**

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

Answer any **TEN** questions

1. Define Microoperation.
2. What is Pipeline register?
3. Define Program counter.
4. List the Data register instructions.
5. What is Partial remainder?
6. Define Dividend alignment.
7. Define Handshake.
8. What is Priority Interrupt?
9. Define Auxiliary memory.
10. What is locality of reference?
11. Define Asynchronous bus.
12. What is CRC?

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

Answer any **FIVE** questions

13. Explain Shift microoperations with example.
14. Discuss the various addressing modes with suitable example.
15. Explain Booth multiplication algorithm.
16. Discuss Isolated versus Memory-mapped I/O.
17. Explain Associative memory with an neat diagram.
18. Briefly explain Direct Memory access.
19. Explain status bit conditions with suitable diagram.

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

Answer any **THREE** questions

20. Explain the design of Control Unit.
21. Discuss Instruction formats with example.
22. Explain hardware implementation for Add and subtract operations.
23. Explain Modes of transfer in detail.
24. Discuss Crossbar Switch with a diagram.

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