

Roll No.

Printed Pages : 2

1198

BCA / D-19
COMPUTER ARCHITECTURE
Paper-BCA-233

Time allowed : 3 hours]

[Maximum marks : 80

Note : A candidate is required to answer five questions in all, selecting one question from each unit in addition to compulsory Question No. 1. All questions carry equal marks.

(Compulsory Question)

1. (a) What is instruction ?
- (b) What is Software Interrupt ?
- (c) Define Micro-operation.
- (d) What is a Micro-Program ?
- (e) What are basic operations of stock ?
- (f) What are functions of Input-Output Interface ?
- (g) What is Memory Hierarchy ?
- (h) Name two auxiliary memory. 8×2=16

Unit-I

2. (a) Explain various Computer Registers. 8
- (b) Explain Architecture of Accumulator Logic. 8
3. (a) What is the role of Timing and Control Signals in Micro-operations ? 8
- (b) Explain various Memory Reference Instructions. 8

1198

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(2)

Unit-II

4. (a) Explain with diagram hardware implementation of Arithmetic Micro-operations. 8
- (b) Explain hardware implementation of Shift Micro-operations. 8
5. Explain :
 - (a) Three State Bus Buffer
 - (b) Register Transfer Language 2×8=16

Unit-III

6. Write various addressing modes with suitable examples. 16
7. (a) Differentiate between RISC and CISC. 10
- (b) What is Program Interrupt ? Explain with example. 6

Unit-IV

8. Write note on :
 - (a) Input-Output Processor
 - (b) Priority Interrupt 2×8=16
9. Explain following in brief:
 - (a) Virtual Memory
 - (b) Interleaved Memory
 - (c) Cache Memory
 - (d) Associative Memory 4×4=16

1198