

Roll No.

Total Pages : 2

GSM/D-21

1198

COMPUTER ARCHITECTURE

Paper-BCA-233

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *five* questions in all, selecting *one* question from each section. Question No. 1 is compulsory. All Questions carry equal marks.

Compulsory Question

1. Write notes on :
 - (a) Hardwired Control.
 - (b) Virtual Memory.
 - (c) I/O Interface.
 - (d) CISC.

SECTION-A

2.
 - (a) What is the difference between Direct and Indirect Addressing Modes? Explain with example.
 - (b) Explain the various Basic Computer Registers.
3.
 - (a) What are the various types of Computer Instructions? Explain.
 - (b) What do you mean by Instruction Cycle? Explain the various instruction cycles for the execution of an instruction.

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SECTION-B

4. (a) What do you mean by Address Sequencing? Explain.
(b) Explain the Hardware Implementation of Arithmetic Microoperations.

5. (a) What is Microprogram Sequencer? Explain its circuit.
(b) Explain the computer configuration for Microprogramming.

SECTION-C

6. (a) What do you mean by Program Interrupt? Explain various program control instructions.
(b) Explain the various Data Manipulation Instructions.

7. (a) What do you mean by RISC? Explain its Characteristics and disadvantages.
(b) Explain the Zero address instructions.

SECTION-D

8. (a) What is Associative Memory? Explain its Hardware Organization.
(b) What do you mean by Paging? Explain the Page Replacement Methods.

9. (a) Distinguish between Synchronous and Asynchronous Data Transfer.
(b) Explain the various methods of Handshaking Asynchronous-Data Transfer.