Roll No. ..... Total Pages : 03

GSE/D-22 1169

COMPUTER ARCHITECTURE

BCA-233

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Section. Q. No. **1** is compulsory. All questions carry equal marks.

1. Write notes on the following :

(a) Interrupt controlled data transfer

(b) Register reference instructions

(c) Register transfer language

(d) RISC.

Section A

2. (a) What do you mean by Instruction Code ? Explain its various components.

(b) Explain the various Input/Output Reference Instructions.

3. (a) Explain various approaches of Control Unit Design and Implementation.

(b) What are the various Addressing modes of basic computer ? Explain.

Section B

4. (a) What do you mean by Microoperation ? Explain the hardware implementation of Logic Microoperations.

   (b) Explain the various CPU Registers.

5. (a) Explain the various Components of Microinstruction.

   (b) What do you mean by Address Sequencing ? Explain.

Section C

6. What do you mean by Instruction Format ? What are the various types of Instruction formats ? Explain with suitable examples.

7. (a) What do you mean by Stack ? Explain PUSH and POP operations.

   (b) What are the various features, advantages and disadvantages of CISC architecture ?

Section D

8. (a) What is Locality of Reference ? Explain its types.

   (b) What do you mean by Associative Memory ? Explain its advantages and disadvantages.

9. (a) Distinguish between Memory Mapped I/O and I/O Mapped I/O.

   (b) Explain the various methods of Strobe Control Asynchronous data transfer.