BCA/D-18

COMPUTER ARCHITECTURE

BCA-233

1. (a)Describe various types of CPU Registers.
(b)Describe the advantages and disadvantages of micro programmed control.
(c)What is thye principal of hardwired control?
(d)Explain IOP.

UNIT-I

2. (a)Explain various approaches of control unit design and its implementation.
(b)Explain fetch and execute operation for a direct type instruction of your choice.

3. (a)Explain various components of the control unit of basic computer.

(b)Discuss various memory references and register references instructions.

UNIT-II

4.What do you mean by micro operations?Explain various types of micro operations with its hardware implementation.

5.An 8-bit register contains the binary value 10010110.What is the register value after following operations:

  (a)shift right

  (b)shift left

  (c)circular shift right

  (d)circular shift left

UNIT-III

6.(a)What do you mean by instruction format?Describe various types of instruction formats with suitable examples.

  (b)What do you mean by stack?Explain various operations on it.

7.(a)Write assembly language code for 1's and 2's compliment addition of 2 binary numbers.

(b)Explain bus organization for various CPU registers using diagrams.

UNIT-IV

8.Describe various data transfer techniques.

9.(a)What do you mean by auxiliary memory?Explain its hardware implementation.

(b)Explain the concept of virtual memory.