

Roll No.....

Total Pages: 3
1905

BCA/M-18
LOGICAL ORGANIZATION OF COMPUTERS-II
Paper: BCA-122

Time: Three Hours

Maximum Marks: 80

Note: Attempt five questions in all. Q. No.1 is compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit. All questions carry equal marks.

Compulsory Question

1. (a) What are sequential circuits? Explain.
(b) Explain magnetic core memories.
(c) What is floppy disc? Explain.
(d) What are Software Interrupts? Explain.

UNIT-I

2. (a) What do you mean by clocked RS flip-flop? Explain with the help of suitable example.
(b) Write down the excitation table for JK flip-flop, RS flip-flop and D flip-flop.
2. What is SR flip-flop? What is the weakness of SR flip-flop and how we can resolve this weakness?

UNIT-II

4. (a) What is Asynchronous counter? Explain Asynchronous MOD-5 counter in detail.
(b) Explain up-down counter in detail with example.
5. Elaborate on parallel in Serial out register, Ripple counter, Shift left register and Synchronous MOD-10 counter in detail.

UNIT-III

6. (a) What is Optical Disk? Explain advantages and disadvantages of optical disk.
(b) Explain magnetic disc in detail along with its advantages and disadvantages.
7. (a) Explain Read Only Memory (ROM) and various types of ROM.
(b) Explain Dot Matrix Printer, Chain Printer and Magnetic Tape.

UNIT-IV

8. (a) Explain the Direct, Implied and Register addressing modes in details.
(b) Explain the interrupt structure in detail.
9. (a) Explain DMA transfer in detail.
(b) Explain the following arithmetic statement using various address instruction formats :

$$X = (A + B) * (C + D)$$