

BCA/M-22

1873

LOGICAL ORGANISATION  
OF COMPUTER-II  
BCA-122

Time : Three Hours]

[Maximum Marks : 80

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

1. (a) Presetting and clearing of a flip-flop.
- (b) Binary counters.
- (c) Laser printer
- (d) Trap Interrupt.

**Unit I**

2. What do you mean by race around condition ? How will you eliminate it ?
3. (a) What is a latch ? Explain working of a clocked SR flip-flop.
- (b) Differentiate D-type and T-type flip-flop.

## Unit II

4. (a) Explain Serial In and Parallel Out 4-bit register.  
(b) How will you convert a shift register as a ring counter ? Explain.
5. (a) What do you mean by Synchronous and Asynchronous binary counters ?  
(b) Explain 4-bit Up-Down counter with timing diagrams.

## Unit III

6. (a) What do you mean by Flash Memory ? Explain.  
(b) Differentiate between RAM and ROM. Describe various types of ROM.
7. (a) Discuss various Memory Parameters.  
(b) Describe Magnetic and Optical Storage Devices.

## Unit IV

8. (a) Explain fetch and execute operation for executing LOAD instructions.  
(b) Describe various Instruction Formats with examples in detail.

9. (a) Explain Program Controlled and Interrupt driven I/O data transfer techniques.
- (b) Explain IOP.