

**Unit-II**

4. Explain various types of Registers in detail. 16
5. Explain the following: 8+8=16
- (a) Synchronous counters
  - (b) Asynchronous counters

**Unit-III**

6. Differentiate between the following: 4×4=16
- (a) Static RAM and Dynamic RAM
  - (b) Magnetic Core and Semi Conductor memories
  - (c) RAM and ROM
  - (d) Primary storage and Secondary storage
7. Explain the following: 8+8
- (a) Flash memory and its benefits
  - (b) Optical disks

**Unit-IV**

8. Explain various addressing modes. 16
9. Explain the following:
- (a) Instruction Cycle
  - (b) Instruction format (with suitable examples)
- 8+8=16

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**B.C.A. 2nd Semester (Full & Re-appear)**

**Examination, May-2023**

**LOGICAL ORGANIZATION OF COMPUTER**

**Paper- BCA-107**

Time allowed : 3 hours] [Maximum marks : 80

*Note: Question No.1 is compulsory. Attempt four questions by selecting one question from each unit. All questions carry equal marks.*

1. (a) What do you mean by flip-flop?
- (b) What is a Register?
- (c) What is a flash memory?
- (d) Define Access time.
- (e) What is Race-around problem?
- (f) Define cache memory.
- (g) What is MICR?
- (h) Define DMA. 8×2=16

**Unit-I**

2. Explain the following : 8+8
  - (a) Master-slave flip-flops.
  - (b) JK flip-flop
3. (a) What do you mean by sequential circuits? Write the characteristics of sequential circuits. 8+8
- (b) What is the difference between combinational and sequential circuit? Explain.