

Roll No. ....

**BCAR/M-14    939**  
**LOGICAL 'ORGANIZATION OF COMPUTERS—II**  
**Paper : BCA-122**  
**(For Reappear Candidates)**

Time: Three Hours]

[Maximum Marks: 80

Note: Attempt five questions in all. Select one question from each unit. Q. No.1 is compulsory.

**Compulsory Question**

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|--|---|
| 1. (a) Differentiate between Combinational and Sequential circuit. | 3 |
| (b) Draw Excitation table of JKFF.                                 | 3 |
| (c) Define Access time and Seek time.                              | 3 |
| (d) How JKFF is converted to D-FF ?                                | 3 |
| (e) Define Interrupt and types of Interrupt.                       | 3 |
| (f) How many FF are needed in Mod -10 counter ?                    | 1 |

**UNIT—I**

- |   |    |
|---|----|
| 2. Explain the problem associated with Clocked SRFF and discuss its solution. | 16 |
| 3. Discuss Race -Around problem, and find solution for this.                  | 16 |

**UNIT—II**

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|--|----|
| 4. Explain Register to store 1010 in Parallel -in -Parallel –out mode. | 16 |
| 5. (a) Make Excitation table of T-FF.                                  | 4  |
| (b) Make Mod -10 counter using T-FF.                                   | 12 |

**UNIT—III**

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|--|----|
| 6. Define Memory. Explain Magnetic Disk on Secondary storage device. | 16 |
| 7. (a) Discuss ROM and types of ROM.                                 |    |

(b) Explain CD and DVD as storage media. 16

#### **UNIT—IV**

8. Explain Addressing modes and solve  $x = (a - b) * (c + d)$  using 3, 2, 1, 0 addressings.

16

9. (a) Explain Cycle stealing.

(b) Discuss Poll -driven data transfer. 16