

Roll No. _____

97666

**BCA 2nd Semester (Full & Re-appear)
Examination – May, 2024**

LOGICAL ORGANIZATION OF COMPUTER

Paper : BCA-107

Time : Three Hours] [Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all. Question Number 1 will be *compulsory*. In addition to compulsory question, student will have to attempt *four* more questions selecting *one* question from each Unit.

1. (a) What is flash memory ?
- (b) Differentiate Ram and Rom.
- (c) What is priority interrupt ?

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P. T. O.

- (b) Explain the working of Binary counter

5. Explain :
 - (i) Shift Registers
 - (ii) Serial Input Serial Output Registers

UNIT – III

6. (a) What are the considerable parameter in designing memory cell ? Explain.
- (b) What is input output controller ? Explain.
7. Explain :
 - (i) Optical storage device
 - (ii) Magnetic storage device

UNIT – IV

8. (a) What is addressing mode ? Explain different type of addressing modes with suitable examples.
- (b) Explain various phase of instruction cycle.

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P. T. O.

- (d) What is machine instruction ?
- (e) What is sequential circuits ?
- (f) What is counters ?
- (g) What is excitation tables ?
- (h) What is state diagram ? State its relevance ?

UNIT – I

2. (a) What is flip-flop ? Explain the working of Jk Flip-Flop with diagram.
- (b) Draw and explain the working of D flip-flop.
3. (a) What are the characteristics of sequential logic ? Explain.
- (b) Explain Master Slave flip-flops.

UNIT – II

4. (a) Explain the working of synchronous counter with the help of diagram.

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9. (a) What is input-output Processor ? Explain with the help of diagram.
- (b) Discuss DMA transfer with the help of diagram.