

2311001001049005
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (COMPUTER SCIENCE)
(FIRST SEMESTER) (NEP)
MDC-ELECTRONICS FOR COMPUTER SCIENCE
THEORY - LEVEL 4

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

1. Fill up strictly the following details on your answer book

- a) Name of the Examination : **BACHELOR OF SCIENCE (COMPUTER SCIENCE) (FIRST SEMESTER)(NEP)**
- b) Name of the Subject : **MDC ELECTRONICS FOR COMPUTER SCIENCE THEORY - LEVEL 4**
- c) Subject Code No : **2311001001049005**

- 2. Sketch neat and labelled diagram wherever necessary.
- 3. Figures to the right indicate full marks of the question.
- 4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Write Very Short Answers

7

- 1. Draw logic symbol and state the logic of NAND gate
- 2. Give the truth table of XOR gate giving its logic symbol
- 3. Name the three methods for representing negative numbers using binary number system
- 4. $(1000\ 0101)_2 = (\text{_____})_8$
- 5. What is the difference between RAM and ROM.
- 6. $(A3)_{16} = (\text{_____})_2$
- 7. Add the following

$$(10110)_2$$

$$(01010)_2$$

Q.2 Show that NOR Gates is Universal Logic Gates **6**

OR

Draw and explain the working of JK Flip/flop **6**

Q.3 Enlist the limitation of RS flip/flop and discuss the D Flip/flop **6**

OR

Draw and explain the JK Flip/flop **6**

Q.4 Short Notes (ANY TWO) 6

1. Special Logic Gates XOR Gates
2. Representation of negative numbers in 2's complement
3. Semiconductor Memories
