

B.SC(IT) SEMESTER - 2 (NEP-2020) Examination**MARCH/APRIL-2026****Computer Organization and Architecture (Multidisciplinary Course)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Que. 1 Answer the following questions: (ANY 2) (10)

- 1) List all logical gates Explain NAND and NOR Gate.
- 2) Explain Block Diagram of Digital Computer.
- 3) Explain Minterms in Map Simplification.
- 4) Explain Complement of function.

Que. 2 Answer the following questions: (ANY 2) (10)

- 1) Explain working of JK Flip Flop.
- 2) Explain D Flip Flop.
- 3) Explain State Diagram.
- 4) Explain Block diagram of Combinational Circuit.

Que. 3 Answer the following questions: (ANY 2) (10)

- 1) Explain NAND Gate Decoder.
- 2) Explain Concept of encoder.
- 3) Explain De-Multiplexer.
- 4) Explain Register in brief.

Que. 4 Answer the following questions: (ANY 2) (10)

- 1) Write note about CPU.
- 2) Explain DR, AR and AC.
- 3) Explain Memory stack.
- 4) Explain Polish Notation.

Que. 5 Answer the following questions: (ANY 2) (10)

- 1) Explain Concept of IOP.
- 2) Explain Bus Request and Bus Grant.
- 3) Explain Main Memory and Auxiliary Memory.
- 4) Write about DMA in brief.
