

B.C.A Semester - 2 (NEP-2020) Examination**JUNE – 2024****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. Explain the Block Diagram of Computer.
2. Explain AND, OR and INVERTER gates.
3. Explain DeMorgan Theorem.
4. Explain XOR and XNOR gates.

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

1. Explain JK Flip Flop with example.
2. Explain working of D Flip Flop.
3. Explain Full Adder.
4. Explain Block diagram of Combinational Circuit.

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

1. Explain 2 to 4 line Decoder with example.
2. Explain octal to binary Encoder.
3. Explain 2 to 1 line Multiplexer.
4. Explain 1 to 4 line De-multiplexer.

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

1. Explain the component of CPU.
2. List all stack organization Explain any Register Stack.
3. Write note about Control word.
4. Explain Reverse Polish Notation.

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

1. Explain Block diagram of computer with I/O Processor.
2. Explain Auxiliary Memory and Cache Memory in detail.
3. Explain RAM and ROM.
4. What is DMA? Explain Bus request and Bus grant.
