

B.C.A Semester - 2 (NEP-2020) Examination**MARCH/APRIL-2025****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.

Que.1	Answer the following questions (ANY 2)	(10)
	1) Explain the Block Diagram of Computer.	
	2) Explain NAND and NOR gates with truth table.	
	3) Explain DeMorgans Theorem.	
	4) Explain BUFFER and INVERTER gates with truth table.	
Que.2	Answer the following questions (ANY 2)	(10)
	1) Explain SR Flip Flop with example.	
	2) Explain working of T Flip Flop.	
	3) Explain State Diagram.	
	4) Explain Half Adder.	
Que.3	Answer the following questions (ANY 2)	(10)
	1) Explain 3 to 8 line Decoder with example.	
	2) Explain Concept of encoder.	
	3) Explain Multiplexer.	
	4) Explain 4-bit register.	
Que.4	Answer the following questions (ANY 2)	(10)
	1) Explain Register Stack.	
	2) Explain Control word.	
	3) Explain Component of CPU.	
	4) Explain Polish Notation.	
Que.5	Answer the following questions (ANY 2)	(10)
	1) Explain IOP in detail.	
	2) Explain concept of DMA.	
	3) Explain RAM and ROM.	
	4) Explain I/O interface.	
