SE | III | NEP | CSE IOT | AIDS | Computer | DEC 2025 Date 10/12/2025

Q.P. code - 98169

Time: 2 Hours Marks : 60

Notes:

1. Question No. 1 is Compulsory.
2. Attempt any THREE from Q2. To Q6.
3. All questions carries equal mark.
4. Calculator having number conversion function is not allowed.

Q1 Attempt any THREE

	A	Convert the following decimal number to Binary, Octal and Hexadecimal number. a) $(345.35)_{10}$ b) $(818.55)_{10}$	5
	B	Explain addressing modes of 8086 with suitable example.	5
	C	Explain Associative memory with its usages.	5
	D	Explain ISA, PCI and USB buses.	5
Q2	A	Draw flowchart for non restoring division algorithm and implement for (13/3)	8
	B	Explain memory hierarchy with diagrams and characteristics of memory.	7
Q3	A	A computer has 64MB main memory and 32KB cache memory. Each line in cache stores 8bytes. Show the format for memory address for Direct and Associative mapping.	8
	B	Explain and compare programmed I/O, interrupt-driven I/O, and DMA.	7
Q4	A	Explain micro- programmed control unit with suitable diagram.	8
	B	Draw and explain the various pipeline hazards and method to resolve it.	7
Q5	A	Explain with suitable diagram Architecture of 8086 microprocessor.	8
	B	Multiply $(12)_{10}$ and $(-5)_{10}$ using Booth's algorithm.	7
Q6	A	Explain bus arbitration with examples	5
	B	Explain Flynn's classification.	5
	C	Differentiate horizontal and vertical microinstruction.	5

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