

2024 (Old)

Full Marks : 60

Sem 1

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from **both** the Sections as directed.

Section - A**(Compulsory)**

1. Explain :

1×10=10

- (a) Flip-Flop
- (b) Multiplexer
- (c) Cache Memory
- (d) Associative memory
- (e) DMA
- (f) Counter
- (g) RISC

(h) Machine language

(i) CISC

(j) Logic gates

2. What is difference between RAM and ROM ?

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Section -B

Answer any **three** questions of the following :

15×3=45

3. What is Register ? Explain shift registers.

4. Explain J-K flip-flop with truth table and diagram.

5. Convert the following numbers :

(a) $(67)_{10} = ()_2$

(b) $(10110)_2 = ()_{10}$

(c) $(43)_8 = ()_2$

(d) $(BC)_{16} = ()_2$

(e) Find 2's complement of 10111000.

6. Explain input, output an secondary storage devices used with Computer.

7. Write short notes on :

(a) Microprocessor

(b) Half Adder
