
Instructions to the students:

- i) All questions are compulsory. ii) Neat diagrams must be drawn wherever necessary.
 iii) Figures to the right indicate full marks. iv) Use of scientific calculator is allowed
 v) Assume suitable data, if necessary.

Q. No.	Question	CO	Marks	BL
1	a) Differentiate between combinational and Sequential circuits, with proper block diagrams.	CO2	[5]	L3
	OR			
	b) Explain J-K flip-flop with its symbol, circuit diagram and truth table. Explain race around condition?	CO2	[5]	L3
	OR			
	c) Describe Registers? Explain the types of Registers.	CO2	[5]	L2
	OR			
2	d) Explain 3-bit asynchronous counter with waveforms.	CO2	[5]	L2
	a) Describe is FSM. Explain following terms in FSM. ii) State diagram. iv) State table.	CO3	[5]	L3
	OR			
	b) Differentiate between Mealy and Moore circuits, with proper block diagrams.	CO3	[5]	L3
	c) Explain the design steps for FSM.	CO3	[5]	L2
	OR			
	d) Draw and Explain Mealy state machines.	CO3	[5]	L2

- BL - Bloom's Taxonomy Levels (1- Remember, 2- Understand, 3 - Apply, 4 - Analyze, 5 - Evaluate, 6 - Create)
- CO- Course Outcomes