

CBCS SCHEME

22MCA32



Third Semester MCA Degree Examination, June/July 2025 Internet of Things

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	List and explain the challenges and problems that IoT is currently facing.	12	L2	CO1
	b.	Explain the Evolutionary Phases of Internet.	08	L2	CO1
OR					
Q.2	a.	With a neat diagram explain the IoTWF Standardized architecture.	12	L2	CO2
	b.	What is the impact of IoT in different areas, explain with any one example.	08	L2	CO5
Module – 2					
Q.3	a.	Classify different types of sensors with examples.	10	L2	CO5
	b.	With a neat diagram, explain the characteristics of smart objects.	10	L2	CO5
OR					
Q.4	a.	Explain IEEE 802.15.4 physical layers, MAC layer topology and security.	12	L2	CO5
	b.	Explain high level Zigbee Protocol Stack.	08	L2	CO5
Module – 3					
Q.5	a.	List the key advantages of Internet Protocol.	10	L2	CO3
	b.	Discuss the 4 schedule management in 6TiSCH arch.	10	L2	CO3
OR					
Q.6	a.	Discuss various IoT application transport methods.	12	L2	CO3
	b.	Explain IoT Application layer protocol MQTT in detail.	08	L1	CO3
Module – 4					
Q.7	a.	Describe different types of data analysis results with a neat block diagram.	12	L2	CO4
	b.	Explain Neural Network in Machine Learning.	08	L2	CO4
OR					
Q.8	a.	What are the common challenges in OT security?	06	L2	CO4
	b.	Illustrate formal risk analysis structure Octave and Fair.	14	L2	CO4
Module – 5					
Q.9	a.	What is Arduino? Explain the analog and digital pins considering an example.	10	L2	CO5
	b.	Explain the Raspberry Pi learning board with circuit diagram.	10	L2	CO5
OR					
Q.10	a.	Explain in detail smart city IoT Architecture.	12	L2	CO5
	b.	Explain Smart City Security Architecture.	08	L2	CO5
