CBCS SCHEME

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BCS701

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Internet of Things

Time: 3 hrs. 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.

			M	L	C
		Module – 1			
Q.1	a.	Explain the characteristics and applications of IoT.	10	L2	CO1
	b.	List and explain the various IoT enabling technologies.	10	L2	CO1
		OR			
Q.2	a.	What is IoT? Explain the generic block diagram of an IoT device.	10	L2	CO1
	b.	Describe the components of an IoT system and explain the IoT level-1 system with a diagram.	10	L2	CO1
		Module – 2			
Q.3	a.	Describe the M2M system architecture and M2M gateway with block diagrams.	10	L2	CO2
	b.	Explain the need for IoT system management.	10	L2	CO2
		OR			
Q.4	a.	Discuss the differences between M2M and IoT systems.	10	L3	CO2
	b.	Describe the IoT system management with NETCONF-YANG with a diagram.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the steps involved in IoT system design methodology with a diagram.	10	L2	CO3
	b.	Explain the following python data types with examples: i) Numbers ii) Strings iii) Lists iv) Tuples v) Dictionaries	10	L2	CO3
		OR			
Q.6	a.	Explain the IoT system for weather monitoring.	10	L2	CO3
	b.	With a program, describe the File Handling functionality of python to read and write using file object.	10	L2	CO3

		Module – 4			
Q.7	**a.**	Explain the various components and peripherals of the Rasberry Pi board.	**10**	**L2**	**CO4**
	b.	Write a python program for switching LED based on reading LDR (Light Sensor) reading.	**10**	**L3**	**CO4**
		OR			
Q.8	**a.**	Describe the Home Intrusion Detection system using IoT.	**10**	**L3**	**CO4**
	b.	Explain the smart parking IoT system.	**10**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	Explain the components of Hadoop cluster and Hadoop MapReduce Job Execution.	**10**	**L2**	**CO5**
	b.	Write a short note on Apache Storm Framework.	**10**	**L2**	**CO5**
		OR			
Q.10	**a.**	Describe how Hadoop MapReduce for Batch Data Analysis with a diagram.	**10**	**L2**	**CO5**
	b.	Explain the key components of Hadoop YARN and its job execution framework.	**10**	**L2**	**CO5**

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