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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.*

Module – 1			M	L	C
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 Raspberry 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
