



CBCS SCHEME

BCS701

Seventh Semester B.E./B.Tech. Degree Examination, June/July 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.	What are the characteristics of IoT and application of IoT?	10	L1	CO1
	b.	Summarize the IoT Protocols.	10	L2	CO1
OR					
Q.2	a.	Describe the functional blocks of an IoT system and communication model.	10	L2	CO1
	b.	Discuss a Level – 6 IoT systems for weather monitoring with diagram.	10	L2	CO1
Module – 2					
Q.3	a.	Outline the End – to – End Architecture for M2M systems with diagram.	10	L2	CO2
	b.	What is NFV (Network Function Virtualization)? How NFV can be used to Virtualized the Home Gateway.	10	L2	CO2
OR					
Q.4	a.	What is the need for IoT System Management?	10	L1	CO2
	b.	Explain the Generic approach for IoT device management with NETCONF-YANG.	10	L2	CO2
Module – 3					
Q.5	a.	What are the steps involved in IoT system design methodology?	10	L1	CO3
	b.	Explain the Information model for the weather monitoring IoT system.	10	L2	CO3
OR					
Q.6	a.	Explain the characteristics of Lists, Tuples, Dictionaries and sets with suitable examples.	10	L2	CO3
	b.	Differentiate between Operator overloading and Function overriding with examples.	10	L2	CO3
Module – 4					
Q.7	a.	Explain the basic building blocks of an IoT device.	10	L2	CO4
	b.	List and explain the Raspberry Pi frequently used commands.	10	L2	CO4
OR					

Q.8	a.	Discuss the benefits of using cloud based system for Data collection and Analysis in a smart irrigation setup.	10	L2	CO4
	b.	Describe the deployment design of the Home Automation IoT system.	10	L2	CO4
Module – 5					
Q.9	a.	Explain the MapReduce job execution workflow for Hadoop MapReduce frame work with diagram.	10	L2	CO5
	b.	Explain a Hadoop MapReduce workflow for batch analysis of IoT data with diagram.	10	L2	CO5
OR					
Q.10	a.	Explain Hadoop YARN job execution with a diagram.	10	L2	CO5
	b.	Write a short note on Apache Oozie , Apache Spark and Apache Storm.	10	L1	CO5
