



**Second Semester B.E./B.Tech. Degree Examination, June/July 2025**  
**Introduction to Internet of Things (IoT)**

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 is IoT? Write the characteristics of IoT system.	06	L1	CO1
	b.	Explain four broad categories of network based on reachability.	06	L2	CO1
	c.	Explain OSI model with the help of neat diagram.	08	L2	CO1
OR					
Q.2	a.	With a neat diagram explain the evolution of IoT.	08	L2	CO1
	b.	Differentiate between IoT and WoT.	04	L2	CO1
	c.	Explain various networking components of IoT with a neat diagram.	08	L2	CO1
Module – 2					
Q.3	a.	Define sensor and explain the characteristics of sensor.	06	L1	CO2
	b.	Explain the factors affecting sensorial deviations.	06	L2	CO2
	c.	With a block diagram, explain the functional blocks of a typical sensor node in IoT.	08	L2	CO2
OR					
Q.4	a.	Differentiate between sensors and actuators.	04	L1	CO2
	b.	Explain the desired characteristics of actuators used in IoT.	06	L2	CO2
	c.	Explain any five classes of actuators.	10	L2	CO2
Module – 3					
Q.5	a.	What are the different data formats found in IoT network? Explain briefly.	06	L2	CO3
	b.	Explain the importance of processing in IoT.	04	L2	CO3
	c.	With a neat diagram, explain on-site processing topology. Mention its merits and demerits.	10	L2	CO3
OR					
Q.6	a.	Explain IoT device design and selection considerations.	10	L2	CO3
	b.	With a neat diagram explain collaborative processing technology.	06	L2	CO3
	c.	Explain four offload location types.	04	L2	CO3
Module – 4					
Q.7	a.	What is virtualization? Explain its advantages from end-user and service provider point of view.	10	L2	CO4
	b.	Explain different types of virtualization in detail.	05	L2	CO4
	c.	Explain service level agreement and its metrics in cloud computing.	05	L2	CO4
OR					
Q.8	a.	Explain the features of (i) Cloud Analyst      (ii) Green cloud	05	L2	CO4
	b.	With a neat diagram, explain the components of an agricultural IoT.	10	L2	CO4
	c.	Explain the advantages of IoT in agriculture.	05	L2	CO4
Module – 5					
Q.9	a.	Explain the components of vehicular IoT with a neat diagram.	10	L2	CO5
	b.	Explain the advantages and risks in healthcare IoT.	10	L2	CO5
OR					
Q.10	a.	With a neat diagram, explain the layered architecture of AmbuSens system of healthcare IoT.	10	L2	CO5
	b.	Illustrate the types of machine learning and explain in detail.	10	L3	CO5