



Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
IIoT (Industrial IoT)

Time: 3 hrs.

Max. Marks: 100

- Notes:* 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.	Discuss the architecture of IIoT with a neat diagram.		10	L2	CO1
	b.	Explain the role of IoT and IIoT in industry.		10	L2	CO1
OR						
Q.2	a.	Define industrial revolution and discuss the different phases of development in the industries.		10	L2	CO1
	b.	Explain the industrial internet and also the main catalysts behind the industrial internet.		10	L2	CO1
Module – 2						
Q.3	a.	Describe the various types of optical sensors. How are resistive temperature sensors different from thermocouple?		10	L2	CO2
	b.	Illustrate the process automation and data acquisition takes place on IoT platform.		10	L3	CO2
OR						
Q.4	a.	Discuss the different types of pneumatic actuators. How is hydraulic actuator different from pneumatic actuators?		10	L2	CO2
	b.	Illustrate the role of microcontroller and Embedded PC in IIoT.		10	L3	CO2
Module – 3						
Q.5	a.	Define Augmented Reality and explain the components involved in Augmented Reality Technologies.		10	L2	CO3
	b.	Discuss the various types of big data and characteristics of big data.		10	L2	CO3
OR						
Q.6	a.	Explain briefly about virtual reality and also categorization of virtual reality.		10	L2	CO3
	b.	Discuss the characteristics and technologies used in smart factory.		10	L2	CO3
Module – 4						
Q.7	a.	Explain profibus protocol with its components and features.		10	L2	CO4
	b.	Discuss Controller Area Network with its features and components.		10	L2	CO4

OR					
Q.8	a.	Describe HART protocol with its components and features.	10	L2	CO4
	b.	Explain fieldbus protocol with components and features.	10	L2	CO4
Module – 5					
Q.9	a.	Discuss the IIoT base healthcare system with block diagram.	12	L2	CO5
	b.	Illustrate the application of IIoT in smart office with example.	8	L3	CO5
OR					
Q.10	a.	Explain the challenges and Industrial IoT as a solution in manufacturing industrial.	10	L2	CO5
	b.	Illustrate the application of IIoT in automotive industry.	10	L3	CO5

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