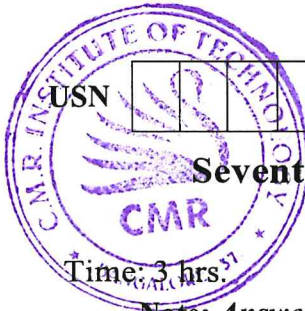# CBCS SCHEME

Seventh Semester B.E. Degree Examination, Jan./Feb. 2021
IOT and Wireless Sensor Networks

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1	a.	Describe IoT reference model suggested by CISCO.	(08 Marks)
	b.	With neat diagram, explain M2M architecture.	(08 Marks)
	c.	Explain the enabling technologies for IoT.	(04 Marks)

OR

2	a.	Explain MQTT protocol for IoT.	(08 Marks)
	b.	Write and explain modified OSI model for the IoT/M2M system.	(08 Marks)
	c.	Write and explain 4 layer architectural frameworks developed at CISCO for a city.	(04 Marks)

Module-2

3	a.	Explain Internet Protocol Version 4.	(08 Marks)
	b.	Explain DHCP protocol for dynamically configuring the IP address and other networks.	(08 Marks)
	c.	List any 4 important features of HTTP port.	(04 Marks)

OR

4	a.	Explain four cloud deployment models.	(06 Marks)
	b.	Explain in detail different cloud service models used in IoT.	(08 Marks)
	c.	List the essential features of cloud storage and computing.	(06 Marks)

Module-3

5	a.	Write and explain traffic light control program using Arduino UNO.	(10 Marks)
	b.	Explain security requirements and threat analysis.	(10 Marks)

OR

6	a.	Describe how data is read from sensors and devices.	(10 Marks)
	b.	Explain IOT security tomography and layered attacker model.	(10 Marks)

Module-4

7	a.	Explain single node architecture of WSN with neat diagram.	(10 Marks)
	b.	Explain optimization goals and figures of merit in WSN.	(10 Marks)

OR

8	a.	Explain gateway concepts.	(10 Marks)
	b.	Explain challenges and characteristics requirements of WSN.	(10 Marks)

Module-5

9	a.	Explain in brief the LEACH protocol in WSN.	(10 Marks)
	b.	Explain energy efficient unicast routing.	(10 Marks)

OR

10	a.	Explain SMAC protocol.	(10 Marks)
	b.	Explain CSMA protocol.	(10 Marks)

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