

6TH SEM./ CS & E / IT / 2024(S)

Th-2 Internet of Things

Full Marks: 80

Time- 3 Hrs

**Answer any five Questions including Q No.1& 2
Figures in the right hand margin indicates marks**

1. Answer **All** questions 2 x 10
 - a. Name the various IOT components.
 - b. Write down any four characteristics of Sensors.
 - c. Classify various types of Actuators in IoT.
 - d. What do you mean by Industry 4.0?
 - e. Write down any four applications of M2M in IoT.
 - f. Differentiate between IoT and Web Stack.(any two)
 - g. In which layers IEEE 802.15.4 is used?
 - h. What are the types of Nodes in M2M?
 - i. Classify nodes based on its behaviour in WSN.
 - j. Define Data Fusion.
2. Answer **Any Six** Questions 6 x 5
 - a. Compare between Piconet and Scatternet in Bluetooth.(any five)
 - b. Explain the architecture of CoAP with a neat diagram.
 - c. Illustrate the working principle of Zigbee with proper diagram.
 - d. Define Software defined Network. Explain the modes of by which sensors detect the object.
 - e. Explain about M2M Ecosystem.
 - f. Differentiate between Software Defined Network and Traditional Network.
 - g. Explain the various components of Arduino UNO Board.
3. Explain the architecture of 6LoWPAN. 10
4. Describe the Pin configuration of Raspberry Pi with a neat diagram. 10
5. Summarise the challenges in Smart Cities. How Smart Parking ecosystem works? 10
6. Differentiate between Consumer IoT and IIoT. Briefly explain about the challenges in IIoT. 10
7. Write a short notes on- 5+5
 - i. MQTT
 - ii. WSN in Healthcare