04/06/2025 BE IT SEM-VII C-SCHEME IOE QP CODE: 10083969

[3 hrs]   [80 Marks]

Note :   1. Question 1 is compulsory
         2. Answer any three out of remaining questions
         3. Assume suitable data where required

Q1	Solve any four	
a)	Define Smart Object in IoT and its characteristics.	**5 marks**
b)	Write short note on RFID	**5 marks**
c)	Draw the Architecture diagram of Advanced Message Queuing Protocol (AMQP) with advantages	**5 marks**
d)	Explain the importance of IoT Data Analytics.	**5 marks**
e)	Explain data acquisition in IoT.	**5 marks**
Q2		
a)	Describe IoT World Forum (IoTWF) standardized architecture.	**10 marks**
b)	State various operating modes of Zigbee and its topologies with diagrams.	**10 marks**
Q3		
a)	Draw and explain the architecture of MQTT with diagram.	**10 marks**
b)	Explain working of Constraint Application Layer protocol (CoAP).	**10 marks**
Q4		
a)	Illustrate the following i) How to create and visualize alerts in IoT? ii) What are the main challenges of IoT?	**10 marks**
b)	Explain the following terms: i) CoAP ii) Internet of Behaviour	**10 marks**
Q5		
a)	Explain the architecture of LoRaWAN with its major characteristics.	**10 marks**
b)	Design the Forest Fire Detection system using IoT sensors.	**10 marks**
Q6		
a)	Describe IoT enabled Smart Home Automation.	**10 marks**
b)	Explain the role of NoSQL in IoT data analytics.	**10 marks**

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