

Time: 3 hours

Max. Marks: 80

Instructions:

1. Q.1 is compulsory - solve any 4 of 5 marks.
2. Solve any THREE questions from Q.2 to Q.6.
3. Figures to the right indicate full marks.
4. Assume suitable additional data, if necessary and clearly state it.

Q.1 Answer any four.

(20 M)

- a) Describe various health & lifestyle domain specific IOT.
- b) Compare and contrast- IoT and Digitization.
- c) Describe Architecture of Wireless Sensor Network.
- d) What are IOT software platforms? Explain with examples.
- e) Explain Raspberry Pi with diagram.

Q. 2 a) Explain Zigbee protocol.

(5 M)

b) Explain HTTP and WebSocket protocols and list out the differences between them. (5 M)

c) Give classification of sensors. Explain different types of sensors. (10 M)

Q.3 a) Explain about the data lakes management in organizing data.

(5 M)

b) Explain how IoT is used in smart lighting with architecture. (5 M)

c) Discuss IOTWF Standardized Architecture. (10 M)

Q.4 a) Explain the core IoT functional stack layers.

(5 M)

b) Short notes on Indoor Air Quality Monitoring system. (5 M)

c) Describe in detail the concept of smart objects in IoT. (10 M)

Q. 5 a) Compare RFID and NFC.

(5 M)

b) Describe about the MQTT protocol with its architecture. (5 M)

c) Explain in detail logical design of IoT. (10 M)

Q.6 a). Compare Edge and Fog computing.

(5 M)

b) Describe the challenges faced for parking in cities; explain how smart parking provides solution to it? (5 M)

c) Explain IoT Data Analytics. What challenges are faced by IoT data analytics? (10 M)
