

PART – A

Answer any five of the following questions

(5x4=20)

1. Explain Internet of Things (IoT) with example..
2. What are different challenges of IoT?.
3. What is Machine to Machine communication (M2M)?.
4. Explain four Pillars of IoT and how they are inter-connected with each other??
5. Explain layered architecture of IoT.?
6. What are different components required for IoT device?.
7. Write note on : RFID, NFC, ZigBee.
8. Explain wireless sensor network?.
9. What is relation between WSN and IoT. Explain with example.?
10. What effect will the internet of things (IoT) have in healthcare? Explain with any one example of smart device.

PART – B

Answer any one full question from each unit

(5x12=60)

Unit-1

1. a) Define the term internet of things. Elaborate on the different applications of IOT.
b) Elaborate on different IOT enabling technologies
(or)
2. Discuss in detail on link layer protocols of IOT.

Unit-2

3. a) What is a Sensor ? Types of Sensors explain with a neat diagram.
b) What is a Actuators ? Types of actuators explain with a neat diagram.
(or)
4. Explain about RFID and various components of RFID.

Unit-3

5. Write a short note on WPAN technologies a) IEEE 802.15.4 b) HART c) Z-WAVE d) NFC e) Modbus
(or)
6. What are the IP based protocols in IOT? Explain about IPV6, REST, AMPQ, COAP, MQTT

Unit-4

7. What is BigData? Characteristics of Bigdata
(or)
8. What is Hadoop and explain the architecture of HDFS and Mapreduce.

Unit-5

9. Explain IOT in Industry manufacturing domain with example.
(or)
10. Explain about the role of IOT in creating the smart cities.

K M M INSTITUTE OF POSTGRADUATE STUDIES::TIRUAPTI
MCA IV - SEMESTER / PRE-FINAL/ INTERNET OF THINGS

B

Time: 3Hrs

Max.Marks:80

PART – A

Answer any five of the following questions

(5x4=20)

1. Explain in details IoT Architecture layers.
2. Explain IoT protocol stack..
3. Write a note on : CoAP, REST, XMPP..
4. What are different IoT protocols?
5. What is role of Cloud Computing and Big Data in Internet of Things?
6. What is IoT Analytics?.
7. Explain issues in IoT security.Explain wireless sensor network?.
8. Difference between Web of Things versus Internet of Things.
9. What is ZigBee?
10. What is meant by MQTT and AMPQ.

PART – B

Answer any one full question from each unit

(5x12=60)

Unit-1

1. Explain about the IOT Architecture and also physical and logical design of iot.

(or)

2. Write a short note on IOT and M2M .

Unit-2

3. Write a short note on a)Arduino b)RaspberriPi development kit

(or)

4. discuss about wireless sensors and types of WSN connecting nodes and networkings.

Unit-3

5. With a neat sketch explain about the 6LoWPAN architecture.

(or)

6. Write in detail about Zigbee technology and application protocols.

Unit-4

7. Introduction to data analytics? Types of data analytics

(or)

8. Describe about cloud analytics and applications and Edge computing.

Unit-5

9. Explain the smart irrigation internet of things system in agriculture application.

(or)

10. List and write a short note on the various applications of IOT in daily life .