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- Notes :
1. All questions carry marks as indicated.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Define Internet of Things (IoT)? And describe framework of IoT. 8
- b) Write a short notes on the following: 8
 - i) M2M
 - ii) Software Defined Network (SDN)

OR

2. a) Elaborate in details about Enabling technologies in IoT along with suitable diagram. 8
- b) Discuss in details about things in IoT and the identification of IoT. 8
3. a) Write a short notes on physical addressing in IoT also compare H with logical addressing. 8
- b) Discuss TCP/UDP port in details also describe TCP/IP protocol suite. 8

OR

4. a) Describe SNMP and write limitation of SNMP. 8
- b) Describe Network access layer and Internet layer in TCP/IP protocol suite. 8
5. a) Discuss pneumatic and Electrical Actuators in details with the help of neat diagram. 8
- b) Illustrate wireless sensor network in details and also write its advantages and disadvantages. 8

OR

6. a) Elaborate the node connecting node and sensor nodes. 8
- b) Differentiate between RFID and NFC also describe identification in IoT. 8
7. a) Discuss in details about device later operability and user interoperability. 8

- b) Write a short notes on Raspberry Pi Board with it's setup. 8

OR

8. a) Write features and types of Arduino Board along with its setup and IDE. 8

- b) Write in your own words about variable scope in python. 8

9. a) What is Big Data? Explain types of data analytics compare qualitative analysis and quantitative analysis along with suitable example. 8

- b) Describe in details the following along with suitable examples 8

i) PaaS

ii) SaaS

iii) IaaS

OR

10. a) Describe in details SDN for IoT, along with suitable example. 8

- b) Write a short notes on Healthcare also write it's application. 8
