Total No. of Questions : 8]

SEAT No. :

P3312

[Total No. of Pages : 2

[5461]-567

B.E. (E&TC)

INTERNET OF THINGS

(2015 Pattern) (Semester - I) (End Sem.) (Elective - I) (404184D)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Neat diagrams must be drawn wherever necessary.***
2) ***Figures to the right side indicate full marks.***

Q1) a) What are various functional blocks of IoT? Describe them in one sentence each. What are various Communication Models in IoT? Describe any two of them. **[8]**

b) Explain any two sensors and their use in IoT. **[6]**

c) What is Z-Wave? Explain the two types of nodes in Z-Wave. **[6]**

OR

Q2) a) Elaborate how identifiers play an important role in IoT. **[8]**

b) Explain the RFID middleware architecture. **[6]**

c) What is NFC? How is it useful in IoT/M2M applications? **[6]**

Q3) a) What is 6LowPAN? Write a brief overview of 6LowPAN adaptation Layer **[8]**

b) Explain the AMQP protocol and its use in IoT systems. **[8]**

OR

Q4) a) What is RPL? Explain how it is useful in IoT implementations. **[8]**

b) What are the various features of CoAP? Explain any two types of Messages in CoAP. **[8]**

P.T.O.

Q5) a) Compare Conventional Big Data and IoT generated Big Data. **[8]**

b) There are two types of data analytics techniques namely qualitative and quantitative. Explain what these techniques are and compare them. **[8]**

OR

Q6) a) A Cloud-based IoT platform is a dynamic and flexible resource sharing platform delivering IoT services. Elaborate on the three service models used in Cloud- based IoT platform. **[8]**

b) Elaborate on any one quantitative data analytics technique. **[8]**

Q7) a) Explain how you will design a smart water management system for agriculture using IoT. **[10]**

b) Elaborate on how you will use IoT for remote healthcare. **[8]**

OR

Q8) a) Explain how will you design an energy management system in a commercial building using IoT. **[10]**

b) What is Industrial loT? How it is different from Conventional IoT? **[8]**

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