

Total No. of Questions : 8]

SEAT No. :

**P3335**

[Total No. of Pages : 2

[5670]-604

**B.E. (E & TC)**

**INTERNET OF THINGS**

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

*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 enabling technologies in IoT? Describe any two. [8]  
b) Explain any one Wireless Sensor Network application. [6]  
c) Explain working of Zigbee protocol. [6]

OR

- Q2)** a) Compare IoT and M2M services. [6]  
b) What is difference between sensor and Transducer? Give examples of each. [8]  
c) What is Bluetooth Low Energy? Explain its architecture. [6]

- Q3)** a) What is REST protocol? Explain characteristics of REST based API. [8]  
b) Explain CoAP messaging format. [8]

OR

- Q4)** a) Explain IPv6 packet format in detail. [8]  
b) What is MQTT? Describe components and methods in MQTT. [8]

- Q5)** a) What is term Big Data in IoT? Elaborate various challenges in Big Data. [8]  
b) Explain types of Data Analytics in detail. [9]

OR

**P.T.O.**

- Q6)** a) What are various types of Big Data? Explain any one in detail. [9]  
b) What is precision? Explain different types of errors. [8]

- Q7)** a) Explain Smart home and smart city applications in view of IoT. [8]  
b) What are IoT design ethics, explain? [9]

OR

- Q8)** a) What are applications of IoT in agriculture field? Explain any one case study. [9]  
b) Write a note on Industrial IoT. [8]

