

Total No. of Questions : 8]

SEAT No. :

[Total No. of Pages : 2

**P3961**

**[5561]-656**

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

**INTERNET OF THINGS**

**(2015 Pattern) (Semester - I) (Elective - I)**

*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 is IoT? Explain: Things in IoT. [6]
- b) What are various components of RFID? Explain any two. [6]
- c) Write a note on Topology models of IEEE 802.15.4 and PAN Coordinator. [8]

OR

- Q2)** a) Compare IoT and M2M services. [6]
- b) How sensors and actuators work? Explain with practical example. [7]
- c) Explain working of Zigbee protocol. [7]

- 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 RPL? Explain DODAG and DIO with respect to RPL. [8]

**P.T.O.**

- Q5)** a) What are various types of Big Data? Explain in detail. [8]  
b) Explain types of Data Analytics in detail. [8]

OR

- Q6)** a) What are various characteristics of Hadoop? [8]  
b) What is precision? Explain different types of errors. [8]

- Q7)** a) Explain Smart home and smart city applications in view of IoT. [10]  
b) How IoT will be used to protect environmental loss? [8]

OR

- Q8)** a) Explain application of IoT in agriculture field. Explain it with a case study. [10]  
b) Write a note on Industrial IoT. [8]

