

Total No. of Questions : 8]

SEAT No. :

PE2601

[6583]-132

[Total No. of Pages : 2

T.E. (IT)

INTERNET OF THINGS

(2019 Pattern) (Semester - V) (314445 D) (Elective - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) Why 6LoWPAN plays important role in IOT. Explain in detail 6LoWPAN. [8]

b) What are advantages of Zigbee? Explain in detail Zigbee protocol stack. [9]

OR

Q2) a) Explain in detail IEEE 802.15.4. [8]

b) What is Bluetooth? Explain in detail Bluetooth Technology. [9]

Q3) a) Explain Arduino. What are the things need to be considered for developing on the Arduino? Which is the official Arduino Boards? [9]

b) Compare Arduino Uno and Raspberry Pi Model. [9]

OR

Q4) a) Draw and explain interfacing of input device (LED) using Arduino Uno with program. [9]

b) What is an IOT Device? List different IOT Devices. Explain any 2 devices. [9]

Q5) a) Explain Cloud storage models (SaaS, Paas, IaaS) and Communication APIs Web server in details. [8]

b) Explain Python Web Application Framework in detail. Explain How different Amazon web services can be used for IOT? [9]

OR

P.T.O.

- Q6)** a) What is the Vulnerability of IOT? Explain in details. [8]
b) What is threat analysis in IOT? Explain threat analysis in detail. [9]

- Q7)** a) Explain smart city architecture with diagram also state security and privacy challenges in smart transportation in smart city. [9]
b) Explain in detail How IOT can be used in home automation? [9]

OR

- Q8)** a) Explain how you will design a smart water management system for agriculture using IOT. [9]
b) Explain in detail any two application of health monitoring using IOT.[9]

