

Total No. of Questions : 8]

SEAT No. :

PA-1506

[Total No. of Pages : 2

[5926]-126

T.E. (Information Technology)
INTERNET OF THINGS
(2019 Pattern) (Semester - I) (314445D) (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 is advantages of Zigbee? Explain in detail Zigbee protocol stack. [9]

OR

- Q2)** a) Explain Piconet and Scatternet with Bluetooth. [8]
b) Explain data aggregation and dissemination in detail. [9]

- Q3)** a) Draw and explain interfacing of output device (Relay) using Arduino Uno with program. [8]
b) Why the python is the first choice for the Raspberry Pi language than C or C++? [9]

OR

- Q4)** a) Draw and explain interfacing of input device (LED) using Arduino Uno with program. [8]
b) What is an IOT Device? List different IOT Devices. Explain any 2 devices. [9]

- Q5)** a) Explain Data and message security and Non repudiation and availability with respect to IOT security. [9]
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) Explain Key elements of IOT Security in details. [9]
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]

