

Total No. of Questions : 8]

SEAT No. :

PE-4274

[Total No. of Pages : 2

[6582]-46

S.E. (AI & DS)

INTERNET OF THINGS

(2019 Pattern) (Semester - IV)(217529)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Draw neat and Clean diagrams.
- 3) Assume suitable data, if necessary.

Q1) a) Explain the Role of IoT in logistics management and smart vending machines in detail? [9]

b) With the help of the following sector justify how IoT technology impacts end-to-end User. [9]

- i) Supply Chain Management
- ii) Industry 4.0
- iii) Smart Cars

OR

Q2) a) Explain the RequestResponse model, Publish Subscribe model and Push/Pull Model? [9]

b) Explain in brief SCADA with a block diagram and SCADA functionality with middleware structure? [9]

Q3) a) Explain any four IoT network protocols? [8]

b) Explain Zigbee and Z-Wave Protocol in detail? [9]

OR

Q4) a) Explain Underground Wireless Sensor Networks and Terrestrial Wireless Sensor Networks. [8]

b) Explain the Block diagram of RFID system with frequency ranges? Explain any two strengths and weaknesses of RFID over Barcode? [9]

P.T.O.

- Q5)** a) What are the different security parameters considered while designing any IoT system? [9]
- b) Explain Various IoT SIM card Technologies. [9]

OR

- Q6)** a) Explain Analog and digital sensors with 2 examples each? [9]
- b) Enlist and Explain Any 4 Attacks on IoT System? [9]

- Q7)** a) Discuss various IoT applications in the Agriculture domain. [8]
- b) How IoT plays a great role in the development of the Automotive Sector. [9]

OR

- Q8)** a) Write applications of the Internet of Things for e-health body area networks. [8]
- b) Explain why Amazon Web Service Cloud is popular in the World as compared to Google App Engine and Microsoft Azure. [9]

