

Total No. of Questions : 8]

SEAT No. :

PD4625

[Total No. of Pages : 2

[6404]-131

B.E. (Electronics & Telecommunication Engineering)
MODERNIZED IOT
(2019 Pattern) (Semester - VII) (404184-E) (Elective - III)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Use of electronic pocket calculator is allowed.
- 5) Assume suitable data if necessary.

- Q1)** a) Describe in detail the HTTP and MQTT session layer Protocol in IoT? **[9]**
b) Write a short note on IPv4 and IPv6 protocol. **[8]**

OR

- Q2)** a) Write a short Note on: **[9]**
i) Z Wave
ii) Bluetooth Low Energy
b) Compare TCP and UDP transport layer protocol? **[8]**

- Q3)** a) Differentiate between Raspberry Pi and Arduino Board. **[9]**
b) Explain the connection of microcontrollers with mobile devices through Bluetooth. **[8]**

OR

- Q4)** a) Explain the DHT interfacing deployment in ESP8266. **[9]**
b) List out and explain any 8 Arduino functions in detail. **[8]**

- Q5)** a) Draw and explain the Architecture of IIoT. **[9]**
b) Explain in detail about the Industrial Internet Architecture Framework (IIAF). **[9]**

OR

- Q6)** a) Briefly explain application of IIoT in: **[9]**
i) Healthcare
ii) Logistics
b) What is IIoT and How is it different from IoT? **[9]**

P.T.O.

- Q7)** a) Explain in detail the Air Pollution monitoring system. [9]
b) Describe the Sportsmen care application for vital signs monitoring in high-performance centers and fields. [9]

OR

- Q8)** a) Describe Photovoltaic Installation -Monitoring and optimization of performance in solar energy plants. [9]
b) Write a short note on: [9]
i) Smart Grid
ii) Smart Parking

