

Total No. of Questions : 8]

SEAT No. :

**PC2417**

**[6354]-535**

[Total No. of Pages :2

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

**MODERNIZED IOT**

**(2019 Pattern) (Semester- VII) (Elective - III) (404184 E)**

*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) Use of electronic pocket calculator is allowed.
- 5) Assume suitable data if necessary.

**Q1) a) Write a short Note on: [9]**

- i) Z Wave
- ii) Bluetooth Low Energy

**b) Compare TCP and UDP transport layer protocol? [8]**

**OR**

**Q2) a) Describe in detail the HTTP and MQTT session layer Protocol in IoT.[9]**

**b) Write a short note on IPv4 and IPv6 protocols. [8]**

**Q3) a) Differentiate between Raspberry Pi and Arduino Board. [9]**

**b) List out and explain any 8 Arduino functions in detail. [8]**

**OR**

**Q4) a) Explain the DHT interfacing deployment in ESP8266. [9]**

**b) Explain the connection of microcontrollers with mobile devices through Bluetooth. [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 the 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) 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

OR

- Q8)** a) Explain in detail the Air Pollution monitoring system in detail. [9]
- b) Describe the Sportsmen care application for vital signs monitoring in high-performance centers and fields. [9]

