

**Total No. of Questions : 4]**

**SEAT No. :**

10 of 10

P-5324

[Total No. of Pages : 2]

[6188]-293

**B.E. (Artificial Intelligence and Data Science) (Insem.)**  
**INDUSTRIAL INTERNET OF THINGS (Elective - III)**  
**(2019 Pattern) (Semester - VII) (417523(B))**

**Time : 1 Hour]**

Max. Marks : 30

### ***Instructions to the candidates:***

- 1) Solve questions Q.1 or Q.2, Q.3 or Q.4.*
  - 2) Neat diagrams must be drawn wherever necessary.*
  - 3) Figures to the right indicate full marks.*
  - 4) Assume suitable data if necessary.*

- Q1)** a) Compare and contrast in between IOT and IIOT. [5]  
b) Discuss various opportunities and challenges in implementation of IIOT. [5]  
c) State and explain the role of IIOT in manufacturing processes with suitable and neat sketch. [5]

QR

- Q2)** a) Elaborate various requirements and design considerations of IIOT.**[5]**

b) Comment on industrial revolutions and significance of IIOT with suitable example. **[5]**

c) List any 5 advantages and applications of IIOT. **[5]**

- Q3)** a) Explain IIOT Sensor Network with neat and suitable diagram. [5]

b) State and explain in brief the role of sensors and actuators used in industrial processes. [5]

c) Compare nWave and Ingenu RPMA on the basis of the following parameters : [5]

i) Frequency Band	ii) Range
iii) Topology	iv) Uplink Data Rate
v) Downlink Data Rate	

P.T.O.

OR

- Q4)** a) Differentiate between Sensors and Actuators. [Any 5 valid points] [5]
- b) Explain data acquisition and process automation in IIOT with suitable sketch. [5]
- c) List any 5 features of Wi-Fi Backscatter. [5]



SPPU Question Papers