

Total No. of Questions : 4]

SEAT No. :

PC-319

[Total No. of Pages : 2

[6361] - 191

B. E. (Artificial Intelligence and Data Science) (In Sem.)

INDUSTRIAL INTERNET OF THINGS

(2019 Pattern) (Semester - VII) (417523B) (Elective - III)

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) Describe how the IIoT evolved from the Internet of Things (IoT). [5]

- b) Define the Industrial Internet of Things (IIoT). Compare and contrast the similarities and differences between IoT and IIoT [5]
- c) Explain how the IIoT is helping to improve efficiency, productivity and safety in industry. [5]

OR

Q2) a) Explain how the IIoT is helping to prevent unplanned downtime and improve asset reliability. [5]

- b) Identify specific applications of IIoT in industry. [5]
- c) List the benefits of using IIoT in industry. [5]

P.T.O.

- Q3)** a) Identify the different types of sensors used in industrial processes. [5]
- b) Compare and contrast the different types of IIoT sensor networks. [5]
- c) Recommend an IIoT low power WAN technology for a specific industrial application. [5]

OR

- Q4)** a) Identify the different types of actuators used in industrial processes. [5]
- b) Explain the advantages and disadvantages of each type of IIoT sensor network. [5]
- c) Analyze how process automation and data acquisition are used together to improve the efficiency and productivity of industrial processes. [5]