

Total No. of Questions : 4]

SEAT No. :

PE-325

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[6580]-697

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) Discuss the role of IIoT in modern manufacturing processes. [5]
b) Explain the key challenges in implementing IIoT in industries and suggest possible solutions. [5]
c) Differentiate between IoT and IIoT with relevant examples. [5]

OR

- Q2)** a) Outline the history of Industrial Internet of Things (IIoT) and its evolution through various industrial revolutions. [5]
b) Identify and discuss the key opportunities and challenges in adopting IIoT in industrial settings. [5]
c) Discuss the applications of IIoT in plant maintenance practices. [5]

- Q3)** a) Explain the role of sensors and actuators in IIoT with examples. [5]
b) Compare ZigBee and Z-Wave technologies in the context of IIoT applications. [5]
c) Describe the process of data acquisition on an IIoT platform. [5]

OR

- Q4)** a) Discuss the characteristic features of NFC and 6LoWPAN in IIoT systems. [5]
b) Explain the technical specifications of Low Power Wi-Fi and SigFox used in IIoT. [5]
c) Evaluate the benefits and challenges of using LTE Category-M in IIoT applications. [5]

