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SEAT No. :

PD-378

[Total No. of Pages : 1

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**B.E. (Robotics and Automation) (Insem.)**

**INDUSTRY 4.0**

**(2019 Pattern) (Semester - VIII) (411511 B) (Elective VI)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates :*

- 1) Solve Q.1 or Q.2, Q.3 or Q.4.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Assume suitable data if necessary.
- 4) Use of Logarithmic Table, Slide rule is Electronic pocket calculator is allowed.
- 5) Figures to the right indicate full marks.

**Q1) a)** Explain the concept of additive Manufacturing. [7]

b) What is Industry 4.0? Explain with its characteristics. [8]

OR

**Q2) a)** Define Technologies in Industry 4.0. [7]

b) Elaborate with diagram RAMI 4.0 Model. [8]

**Q3) a)** What is Smart Grid explain in detail? [7]

b) Write Short Notes on, [8]

i) Predictive Analytics.

ii) Design Challenges of smart grid.

OR

**Q4) a)** Differentiate In between 'Conventional grid' And 'Smart Grid'. [7]

b) Explain "Smart City" And its Properties. [8]

