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SEAT No. :

PD291

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

**NANO ELECTRONICS**

**(2019 Pattern) (Semester-VIII) (Elective-VI) (404192 B)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer 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) Name the tools for measuring Nano structure? Explain Transmission Electron Microscope(TEM). [8]

b) Explain Scanning Prob Microscopy (SPM) With neat Diagram. [7]

OR

**Q2)** a) What are the limitation of Silicon Materials. [7]

b) Explain Lithography Process Steps. [8]

**Q3)** a) Explain Dielectric Material for future Transistor. [8]

b) Explain Atomic Force Microscopy (AFM). [7]

OR

**Q4)** a) With Neat diagram Explain Nano CMOS-Devices. [7]

b) Explain Silicon nano Crystal Non Volatile Memories. [8]

