

Total No. of Questions : 8]

SEAT No. :

P-6627

[Total No. of Pages : 2

[6181]-190

B.E. (Electronics & Telecommunication)

NANO ELECTRONICS

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

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) a) Explain Metal nano particles? Classified Nano particles Properties. [8]

b) Explain Properties of CNT & give its Applications. [8]

OR

Q2) a) What is Cluster? Explain Carbon nano tubes. [8]

b) Explain Nano material & Its Types. [8]

Q3) a) Explain Photolithography process in detail. [9]

b) Explain Electron Beam Lithography with neat Diagram. [9]

OR

Q4) a) Explain Nano electronics for communication. [9]

b) Explain Atomic Lithography with neat Diagram. [9]

Q5) a) What are molecular switch? Explain Ph switch. [9]

b) Explain MEMS. [9]

OR

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- Q6)** a) Explain NEMS. [9]
b) Explain types of Super molecular Switches. [9]

- Q7)** a) What are Nano sensor? Explain Optical Sensor. [9]
b) Which are types of Nano Sensor? Explain Nano biosensor. [9]

OR

- Q8)** a) What is Energy Capture? Explain Solar Cell. [9]
b) Explain Transformation. [9]

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