

Total No. of Questions : 8]

SEAT No. :

PC2427

[Total No. of Pages : 2

[6354]-548

B.E. (E & TC)

NANO ELECTRONICS

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

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 indicate full marks.
- 4) Assume suitable data if necessary.

- Q1)** a) What is cluster? Explain Carbon nano tubes. [8]
b) Explain Nano material and its types. [8]

OR

- Q2)** a) Explain properties of CNT. [8]
b) Explain Semiconductor Nano particles. [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 Redox switch. [9]
b) Explain MEMS. [9]

OR

P.T.O.

- Q6)** a) Define Nano machine? Explain Nano Tubes Actuators. [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 use of Nano technology in Electronics? [9]
b) Explain Transformation. [9]

