Total No. of Questions : 8]

SEAT No. :

PB2305

[Total No. of Pages :2

[6263]-144
B.E. (E & TC)
NANO ELECTRONICS
(2019 Pattern) (Semester-VIII) (Elective - VI) (404192B)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicates 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

Q6) a) Define Nano Machine? Explain Nano Tubes Actuators. **[9]**

b) Explain types of Super Molecular Switches. **[9]**

P.T.O.

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]**