

Roll No. ....

Printed Pages : 2

**8792**

**BT-7 / M-14**

**NANOTECHNOLOGY**

**Paper – ECE-421E**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Attempt any five questions. All questions carry equal marks.*

**Unit-1**

1. Give reasons for the excitement in research regarding the future of nanotechnology. Write a brief note on the theory and principle of working of the equipment needed for nanotechnology. 20
2. What is nanotechnology ? Discuss how the use of Atomic Force Microscopy has made changes in the field of nanotechnology. 20

**Unit-2**

3. Write a note on the various sputtering and thermal evaporation methods for nanoparticle synthesis. 20
4. Explain the synthesis of nanoparticles and semiconductor nanoclusters through chemical route. 20

**Unit-3**

5. Explain how nanoparticles help bring out superior magnetic and electron transport properties in materials. 20

( 2 ) .

6. What is porous silicon ? How is it formed ? What is the relation between structure, surface and optical properties ? 20

**Unit-4**

7. What are Nanotransistors ? Discuss its applications and its fabrication techniques. 20
8. Write a detailed note on : 20
  - (a) Nano-devices
  - (b) Nano-electro optics.

http://www.kuonline.in

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से

**8792**

P.T.O.

**8792**