

Code: R7 420304

**R7**

B.Tech IV Year II Semester (R07) Advanced Supplementary Examinations, June 2012

**NANOTECHNOLOGY**

(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

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- 1 Explain Mossbauer, spectroscopy and optical phenomena bonding in solids.
- 2 Describe process of nano materials preparation.
- 3 Discuss preparation of strength measurements of nano materials.
- 4 Discuss various electrical properties of switching glasses with nanoparticles.
- 5 Describe the process of synthesis of nano powders.
- 6 Discuss scanning probe microscopics for nano science.
- 7 What are different types of inorganic materials for synthesis of hybrid nano-bio assemblies?
- 8 Discuss nanotechnology applications in:
  - (a) Biology.
  - (b) Tribology
  - (c) Mechanics.

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