

Code: R7420304

R7**B.Tech IV Year II Semester (R07) Supplementary Examinations March/April 2013****NANOTECHNOLOGY**
(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 Where do you see "NANOTECHNOLOGY" in coming next years?
- 2 Explain the following:
 - (a) Preparation of nano materials in general.
 - (b) Sintering of SIC.
- 3
 - (a) How do you gauge the mechanical strength of nano crystalline "Silicon Carbide"?
 - (b) Explain the magnetic properties of nano-materials.
- 4 Explain in detail stating their applications:
 - (a) Electrical properties and
 - (b) Optical properties.
- 5 Enumerate :
 - (a) Application of Nano Powders.
 - (b) Nano materials in mechanical engineering.
- 6 Explain in detail:
 - (a) Scanning probe microscopics.
 - (b) Optical microscopics.
- 7
 - (a) What do you understand by hybrid nano-bio assemblies?
 - (b) Write about future perspectives of nanobiology.
- 8 Explain the application of nano technology for:
 - (a) Diagnostics.
 - (b) Therapeutic.
