

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID : 154661

Roll No.

--	--	--	--	--	--	--	--	--	--

B.TECH.

Theory Examination (Semester-VI) 2015-16

NANO BIOTECHNOLOGY

Time : 3 Hours

Max. Marks : 100

Section-A

1. **Attempt all sections. All sections carry equal marks. Write answer of each section in short.** (2×10=20)

- (a) Define nanoparticles.
- (b) What is the principle of atomic force microscopy?
- (c) Explain the macro molecular assemblies.
- (d) What do you understand by nano particle based immobilization?
- (e) What is tumor targeting?
- (f) Write down the application of nanoparticles.
- (g) Give the name of viruses which are used as nano particles.

(1)

P.T.O.

- (h) What do you mean by quantum dot techniques?
- (i) Explain the biological production of metal nano particles.
- (j) What is function of nanoparticle in biological research?

Section-B

2. Attempt any five questions from this section. (5×10=50)

- (a) Write down the synthesis and characterization of different classes of biomedical polymers.
- (b) What are the basic principal and applications of immune-nanotechnology?
- (c) What do you understand by ophthalmologic orthopedic areas?
- (d) Explain the applications of quantum dots technology in details.
- (e) Write down the working of atomic force microscopy.
- (f) What do you mean by immobilization assay? Explain in details.

- (g) What are the basic principal and working of microfrication techniques?
- (h) Explain the green synthesis of metal nanoparticles.

Section-C

Attempt any two questions from this section. (2×15=30)

- 3.
 - (a) What do you understand by Moore's law?
 - (b) Explain the principal and applications of electron beam lithography.
- 4.
 - (a) What do you understand by surface plasmaon resonance on nano scale.
 - (b) Explain biomedical polymers.
- 5. Discuss the feature of two plate mould & three plates Mould with sketch.