

M.Sc. REGENERATIVE MEDICINE DEGREE EXAMINATION

(2013-2014 Batch onwards)

FIRST YEAR

PAPER IV – GENETICS, BIOINFORMATICS AND NANOTECHNOLOGY

Q.P. Code : 281504

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Define Transfection. Explain the various methods of transfection.
2. Define carbon nanotube. List the types and explain the properties of carbon nanotubes. List the methods of synthesis of carbon nanotubes and explain any one in detail with a sketch.

II. Write Notes on:

(10 x 6 = 60)

1. Southern Blotting.
2. Ramachandran plot.
3. SDS PAGE.
4. Amniocentesis.
5. Hardy–Weinberg principle.
6. Working of scanning electron microscopy.
7. Nanobiosensors.
8. BLAST and E value.
9. Gold Nanoparticles.
10. Construction of Phylogenetic tree.
