DG-1687
M. Sc. (Integrated Biotechnology) (Sem. V)
Examination
March / April - 2016
BT - 13 : Introduction to Nanobiotechnology
(New Course)

Time : 2 Hours] [Total Marks : 50

Instructions :

(1) Fill up strictly the details of signs on your answer book.

(2) Figures to the right indicate full marks.

(3) Draw neat and labelled diagrams wherever necessary.

1 Define Any Four
   A. Define and draw the labelled schematic diagram of liposomes.
   B. Enlist the mechanisms of nanoparticles stabilization.
   C. Enlist the size dependent physical and chemical properties of nanomaterials.
   D. Enlist the different viral peptides which can be used as VPL motors.
   E. Which enzymes are used for the fabricating and designing the DNA synthetically?

2 Attempt Any Two of the following:
   A. Explain the different types of nanomaterials.
   B. Writes the application of nanotechnology.
   C. Elaborate the use of different microbes in nanoparticles synthesis.

3 Explain in detail Any Two of the following:
   A. Explain any three chemical routes of nanoparticles synthesis.
   B. Describe DNA scissors and DNA tweezers.
   C. Write the application of protein nanostructures in nanotechnology.
4 Explain in detail Any Two of the following: (14)
A. Explain the various nanomaterials used for delivery of therapeutic agents.
B. Discuss the application of nanotechnology in food and agricultural sectors.
C. Write a note on CNTs application in diagnostic equipment