

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2019
(Third Semester)

Branch-BIOTECHNOLOGY

NANO BIOTECHNOLOGY

Time: Three Hours

Maximum: 75 Marks

Answer ALL questions
ALL questions carry EQUAL marks (2 + 5+ 8)

- 1 a What is the use of carbon nanotubes?
b Explain the principle and working of scanning Annulling Microscopy,
c Explain the construction transmission.
OR
d What is the structure of nanotubes?
e List out the properties of magnetosomes.
f Discuss the top down and bottom.
- 2 a What is biochip technology?
b Write note son biological neuron.
c Explain role of nano technology in Agricultural preservation.
OR
d What is nanocomposite material?
e Give brief account on molecular electronics,
f Explain natural nano composting materials
- 3 a Why is DNA microarray an important tool?
b How does Dynein function as a motor protein?
c Explain antibody conjugates nano particles for Biomedical applications.
OR
d What is meant by decoding DNA?
e Give account on enzyme based sensors,
f Explain DNA sequencing with nonporous.
- 4 a What is an Immunosensor?
b Write notes on nanobat medical devices,
c Explain Electrochemical independence spectroscopy.
OR
d What are the applications of nanotechnology?
e Give account on tethered lipid membranes,
f Discuss on applications of magnetic nanoparticles.
- 5 a What are electrospun fibers?
b Write notes on nano finishing in textiles,
c Explain fundamental aspects of electrospinning process.
OR
d What is scaffold in tissue engineering?
e Write notes on self cleaning filtration nanofibers membrane,
f Discuss on electro spinning and nanofibers advantages.