

M.Sc. (Microbiology) (NEP Pattern) Semester-II
02MSCMB01 - Paper-I : Advance Techniques in Microbiology

P. Pages : 1

Time : Three Hours



GUG/W/24/15406

Max. Marks : 80

Note : All questions are compulsory and carry equal marks.

1. Describe the role of light scattering and viscosity method in the determination of size, shape and mol. wt. of macro molecules. **16**
- OR**
- a) Describe the CD/ORD method in the determination of size, shape & mol. wt. of macro molecules. **8**
- b) Explain the determination of size, shape & mol. wt. by any one centrifugation technique. **8**
2. Describe the principle, working mechanism and applications of two-dimensional gel electrophoresis. **16**
- OR**
- a) Explain working mechanism and applications of SDS – page. **8**
- b) Describe working mechanism and applications of capillary electrophoresis. **8**
3. Describe the construction and working mechanism and applications of TEM. **16**
- OR**
- a) Explain working mechanism and applications of Laser Scanning Technique. **8**
- b) Write a note on – Immunoelectron Microscopy. **8**
4. Write note on-
- a) Western blotting techniques. **8**
- b) Radia immunoassay. **8**
- OR**
- Describe working mechanism and biological importance of NMR. **16**
5. Write an account on-
- a) Diffusion technique in determination of size & shape of macromolecules. **4**
- b) Capillary electrophoresis. **4**
- c) FISH **4**
- d) Site – directed mutagenesis. **4**
