

M.Sc.(Microbiology) (CBCS Pattern) Second Semester CBCS  
**PSMBT-105 - Advanced Techniques in Microbiology Paper - I**

P. Pages : 1

Time : Three Hours



**GUG/W/18/11216**

Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.

1. Write a note on
- a) Diffusion Sedimentation. 8
  - b) Viscosity. 8

**OR**

Describe any two methods of determination of molecular weight of proteins. 16

2. What is electrophoresis? Explain SDS-PAGE with its significance. 16

**OR**

Write a note on:

- a) Capillary Electrophoresis. 8
- b) Immunoelectrophoresis. 8

3. Write a note on.
- a) Confocal microscopy. 8
  - b) Basic principle involved in NMR and its applications. 8

**OR**

Describe principle, working and applications of Atomic absorption spectrophotometry. 16

4. a) Explain what is radioimmunoassay 8
- b) Give applications of Radioisotopes in biology. 8

**OR**

Write a note on

- a) Western blotting and its applications. 8
- b) Site directed mutagenesis. 8

5. Write short note on: 16
- a) Ion exchange chromatography.
  - b) Types of gels used in Electrophoresis
  - c) Atomic force microscopy.
  - d) Northern blotting technique.

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