

M.Sc. (Biotechnology) (CBCS Pattern) Sem-I
PSBIT103 - Biophysical Techniques Paper-III

P. Pages : 1

Time : Three Hours



GUG/W/22/11148

Max. Marks : 80

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

1. a) Describe in detail ascending paper chromatography and its applications. **8**
b) Describe the determination of molecular weight of biopolymer through viscosity. **8**
OR
a) Explain the concept of agarose gel electrophoresis and give applications. **8**
b) Discuss working mechanism of HPLC. **8**
2. Describe in detail determination of molecular weight by sedimentation velocity. **16**
OR
Write notes on-
a) Density gradient centrifugation and applications. **8**
b) Types of centrifuge. **8**
3. Explain in detail working of NMR spectroscopy. Give applications. **16**
OR
Write notes on-
a) Lamberts Beer's Law and deviations. **8**
b) Mass Spectrophotometry. **8**
4. Describe the working mechanism and applications of liquid scintillation counter. **16**
OR
Write notes on-
a) Autoradiography and Cerenkov radiation. **8**
b) Tracer techniques, advantages and limitations. **8**
5. Write short notes on-
a) Principles of partition adsorption. **4**
b) RCF. **4**
c) Rate of radioactive decay. **4**
d) Distribution studies. **4**
