

M.Sc.(Biotechnology) (NEP Pattern) Semester-I
NEP-93 / 01MSCBT03 - Paper-III : Biophysical Techniques

P. Pages : 1

Time : Three Hours



GUG/W/23/15054

Max. Marks : 80

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

1. Discuss the different types of gel electrophoresis. 16

OR

a) Discuss how to determine the molecular weight of biopolymer through viscosity. 8

b) Write a note on ion exchange chromatography. 8

2. Discuss different types of centrifuge with their applications. 16

OR

a) How can you determine the molecular weight by sedimentation velocity. 4

b) Mathematically how to determine the RCF applied to particles during centrifugation. 4

3. Give an account on Raman and Mass spectrophotometry. 16

OR

a) Write a note on NMR. 8

b) Write a note on fluorescence spectrophotometry. 8

4. Give overall account on Geiger-Muller counter. 16

OR

a) Write a note on solid scintillation counter. 8

b) Write a note on liquid scintillation counter. 8

5. Write short notes on:

a) High performance liquid chromatography. 4

b) Write a note on sedimentation coefficient. 4

c) Beer's law. 4

d) Stable isotopes. 4
