

Exam. Code : 107406  
Subject Code : 1695

B.Sc. (Bio Technology) 6<sup>th</sup> Semester  
BT-6 : BIOPHYSICAL AND BIOCHEMICAL  
TECHNIQUES—B

Time Allowed—3 Hours] [Maximum Marks—40

Note :— Attempt FIVE questions in all, selecting at least ONE question from each section. The FIFTH question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. How biological molecules are analysed using Quadrupole Mass Analyzer ? Explain Tandem Mass Analyzer. 8
2. Discuss different type of detectors used in Mass Spectroscopy. 8

SECTION—B

3. Write the structure and function of different components required in SDS-PAGE. 8
4. Discuss :—
  - (a) Molecular structure of Agarose gel.
  - (b) Mechanism of Polymerization of PAGE. 4+4=8

### SECTION—C

5. Give detailed account of 2D-electrophoresis and its role in proteomics. 8
6. Describe capillary electrophoresis, its different type and applications. 8

### SECTION—D

7. Discuss Geiger Muller tubes, its type, applications and limitation. 8
8. Explain :—
  - (a) Primary and secondary flour
  - (b) Safety Rules of Radioisotopic studies. 4+4