

ISU

BT 1.2



**I Semester M.Sc. in Biotechnology Examination, May 2014**  
**BIOCHEMICAL TECHNIQUES**

Time : 3 Hours

Max. Marks : 80

**Instruction :** Answer *all* the Sections.

**SECTION – A**

Answer **any four** questions from the following :

**(4×5=20)**

1. Cultured cells.
2. Albino mice.
3. Gel filtration.
4. Reverse zymogram.
5. Oxygen electrode potential.
6. Determination of extinction coefficient.

**SECTION – B**

Answer **any three** questions from the following :

**(3×10=30)**

7. Scintillation counters.
8. Preparation of gradients for centrifugation.
9. Principles and applications of 2D-electrophoresis.
10. Two dimensional chromatography.
11. Safety measures in radiobiology laboratory.

**SECTION – C**

Answer **any two** questions from the following :

**(2×15=30)**

12. Explain chromatography techniques used for separation of proteins and their applications.
13. Discuss the separation of nucleic acids by using different electrophoresis. Add a note on visualizing methods employed for separated macromolecules.
14. Describe instrumentation of preparative and analytical ultra-centrifuge.
15. Write a note on radioisotopes preparation and their applications in biology.