(b) UV visible spectrometry

5. Describe the principle and application of gel electrophoresis. Add a note on SDS-PAGE. [10+4=14]

OR

6. Write notes on following: [2x7=14]
   (a) PCR
   (b) Western blotting

7. Write the principle, protocol and applications of radioimmunoassay (RIA). [4+8+2=14]

OR

8. Write notes on the following: [2x7=14]
   (a) Single radial immune assay (SRID)
   (b) ELISA

9. What do you mean by sample and sampling? Differentiate between stratified and non-stratified sampling methods. Discuss the methods of sampling with examples. [2+2+10=14]

OR

10. Write notes on following: ` [5+6+3=14]
   (a) Measures of Central tendency
   (b) Variance and standard deviation

★★★

PG Even Semester Examination, May 2025

LIFE SCIENCE & BIOINFORMATICS

2nd Semester

Course No. : LS - 553

(Techniques in Biology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

(Answer all questions)

1. Describe the principle, instrumentation and application of fluorescence microscope. Add a note on various techniques used in this microscopy. [10+4=14]

OR

2. Write the principle of electron microscopy? Describe sample preparation method for scanning electron microscopy. [4+10=14]

3. What is chromatography? Discuss different forms of chromatographic techniques. [2+12=14]

OR

4. Write notes on following: [2x7=14]
   (a) HPLC

(Turn Over)