

(i) Printed Pages: 3

Roll No.

(ii) Questions : 9

Sub. Code :

0	1	6	0
---	---	---	---

Exam. Code :

0	0	0	2
---	---	---	---

**B.A./B.Sc. (General) 2nd Semester
(2054)**

BIO-CHEMISTRY

Paper-A : Biochemical Techniques

Time Allowed : Three Hours]

[Maximum Marks : 45

Note :—Attempt **FIVE** questions; at least **ONE** question is compulsory from each Section. Q. No. 1 is compulsory.

1. Give the answer of following questions in very brief :—

- (i) Monochromatic light.
- (ii) What is the visible range of light ?
- (iii) Give the names of Adsorption chromatography.
- (iv) Write name of two chromatography methods used to isolate Lipids.
- (v) What is the SDS PAGE ?
- (vi) Write one function of anion exchangers.
- (vii) Write one function of southern blot.
- (viii) Give two functions of acrylamide in electrophoresis.
- (ix) Give name of chemical agent used for protein denaturation.

9×1

SECTION—I

2. (a) What is the UV-VIS spectrophotometry ? Also make a diagram about different parts of UV instrument.
(b) Write the various applications of UV-VIS spectrophotometry. 5,4
3. (a) Write and draw the instrumentation of fluorescence microscopy.
(b) Describe in brief the various applications of IR Spectroscopy. 4,5

SECTION—II

4. (a) Define Chromatography. Write the advantages of affinity chromatography.
(b) Write a short note on paper chromatography. 5,4
5. (a) Write about the sample detection system in gas liquid chromatography.
(b) Mention the basic principle and application of HPLC. 4,5

SECTION—III

6. (a) What is the centrifugation ? What is the application of ultracentrifuge ?
(b) Describe about the types of centrifuges. 5,4
7. (a) Write a short note on preparative centrifugation.
(b) Mention the safety measures related to a centrifuge machine. 5,4

SECTION—IV

8. (a) What is the Electrophoresis ? Write the difference between SDS-PAGE and Native PAGE.
(b) Describe the gel preparation principle in the case of SDS-PAGE. 5,4
9. (a) Write a short note on 2D-PAGE.
(b) What is the Northern blotting ? Also, write its applications. 4,5