

(i) Printed Pages: 3 Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

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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