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Roll No. ....

B.Sc.(Microbio.)-I

**3491**

**B. Sc. (Microbiology) Examination, May 2018**

**Analytical Techniques**

**(B-108)**

*Time : Three Hours*

*[Maximum Marks : 50*

*Note :* Attempt any *Five* questions. All questions carry equal marks.

1. What is Autoradiography ? Discuss its main principles and applications. 10

2. Comment on the following : 2½×4

(i) Phases in Chromatography

(ii) TEMED

(iii) SDS

(iv) Radioisotopes.

3. Write about the principle of TLC. Why TLC is superior to paper chromatography ? 10

(2)

4. Define any two of the following : 5+5

(a) Nucleic acid staining

(b) Band patterns

(c) Cell sorting.

5. What is SDS-PAGE ? Write its principles and applications along with its limitations. 10

6. Write short notes on the following : 5+5

(a) Chromosomal technique

(b) Tracer technique.

7. Discuss the principles and applications of Immunoelectrophoresis. Also discuss its role in Medical Microbiology. 10

8. What is fermenter ? Discuss about its various types with the help of suitable diagrams. 10

9. Discuss the principle and applications of ion-exchange chromatography used in the separation of biomolecules. 10

(3)

10. Define Chromatography. Also discuss its various types with special reference to gel filtration chromatography. 10