(20518) Roll No. .....

B. Sc. (Biotech.)-I Year

NS-3460

B. Sc. (Biotechnology) Examination, May 2018

Instrumentation and Bioanalytical Techniques

(B-106)

(New)

Time : Three Hours] *[Maximum Marks : 50*

Note : Answer any *Five* questions. Each question carries 10 marks.

1. Write short notes on any two of the following : 5×2=10

   (a) Fluorescent microscopy

   (b) Scanning electron microscopy

   (c) Affinity chromatography.

2. Discuss the principle, instrument and applications of Gas Liquid Chromatography (GLC). 10

3. Define Radioactivity. How can you classify radioactivity into different types and measure the amount of radioactivity in biological samples ? 10

4. Comment on any two of the following : 5×2=10

   (a) Density gradient centrifugation

   (b) Luminometry

   (c) Application of mass spectrophotometry.

5. What do you understand by "Autoradiography"? Discuss its principles, design and applications of the autoradiography. 10

6. Describe in brief any two of the following : 5×2=10

   (a) Capillary electrophoresis

   (b) Primers

   (c) X-ray crystallography.

7. Describe the principle and function of UV visible spectrophotometer. 10

8. Write short notes on the following : 5×2=10

(a) Ion-exchange chromatography

(b) Immuno-electrophoresis.

9. Discuss the principle, instrument and applications of Gas Liquid Chromatography (GLC). 10

10. Write short notes on the following : 5×2=10

(a) Radioisotope tracer technique

(b) Polarography.