

Sixth Semester B. Sc. Examination

ZOOLOGY

Paper – II : Applied Zoology

**(Biotechniques, Microtechnique, Biotechnology
Bioinformatics and Biostatistics)**

Time : Three Hours]

[Max. Marks : 50

N. B : (1) All questions are compulsory.
(2) All questions carry equal marks.
(3) Illustrate your answer with suitable diagrams.

1. Describe principles and applications of Ion exchange chromatography. 10

OR

Write notes on :—

(A) Density gradient centrifugation. 5
(B) Colorimeter. 5

2. Describe double staining technique with Haematoxylin and Eosin. 10

OR

Write notes on :—

(A) Embedding process. 5
(B) Mercury-Bromophenol blue method. 5

3. Give detail account of different types of cloning vectors. 10

OR

Write notes on :—

(A) Polymerases. 5
(B) Vaccine production. 5

4. Describe in detail various types of Bioinformatics databases. 10

OR

Write notes on :—

(A) EMBL 5
(B) Probability 5

5. Write **four** to **five** lines on the following (any **Ten**) :—

(i) UV Radiation.
(ii) Rate Zonal centrifugation.
(iii) Beer's Law.
(iv) Bouin's fixative.
(v) Trimming
(vi) Sudan Black.

- (vii) SI nuclease.
- (viii) BAC
- (ix) DNA vaccines
- (x) FASTA
- (xi) SWISS-PROT
- (xii) Ogive curve.

10