

Bachelor of Science B.Sc. Semester—VI (C.B.S.) Examination

APPLIED ZOOLOGY—II

Paper—2 (Zoology)

(Biotechniques, Microtechniques, Biotechnology Bioinformatics and Biostatistics)

Time : Three Hours]

[Maximum Marks : 50

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

1. Describe in detail SDS–PAGE. 10

OR

Write notes on :—

- (A) Autoclaving. 5
(B) Principle of spectrophotometer. 5

2. Describe in detail the difficulties encountered during section cutting and their remedies. 10

OR

Write notes on :—

- (A) Paraffin embedding. 5
(B) PAS (Periodic acid schiff) staining. 5

3. Describe the production of Insulin with the help of recombinant DNA technology in detail. 10

OR

Write notes on :—

- (A) Shotgun cloning 5
(B) Nucleases. 5

4. Describe the different types of protein databases and their importance in life sciences. 10

OR

Write notes on :—

- (A) GenBank. 5
(B) Standard deviation. 5

5. Write **FOUR** to **FIVE** lines on the following (any **TEN**) :—

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|-----------------------|--------------------------------------|
| (i) Membrane filter | (ii) Density Gradient Centrifugation |
| (iii) Optical density | (iv) Carnoy's fixative |
| (v) Sudan black-B | (vi) Buoin's fixative |
| (vii) Linkers | (viii) Ligase |
| (ix) Humulin | (x) NCBI |
| (xi) BLAST | (xii) Mean. 10 |