

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

**APPLIED ZOOLOGY–II**

**Paper–2**

Time : Three Hours]

[Maximum Marks : 50

1. Describe principles and applications of gel filtration. 10

**OR**

Write notes on :

- (A) Radiation sterilization. 5  
(B) Agarose gel electrophoresis. 5

2. Describe histochemical staining for lipids by Sudan black-B and proteins by Mercury Bromophenol Blue method. 10

**OR**

Write notes on :

- (A) Problems and remedies during section cutting. 5  
(B) Double staining with Haematoxylin and Eosin. 5

3. Describe in detail the different types of DNA manipulating enzymes. 10

**OR**

Write notes on :

- (A) Plasmids. 5  
(B) Recombinant Vaccinia vaccine. 5

4. Describe in detail the different types of nucleotide sequence databases and importance of databases in life sciences. 10

**OR**

Write notes on :

- (A) Secondary databases. 5  
(B) Mean. 5

5. Write **four** to **five** lines each on the following (any **ten**) :

- (i) Autoclave
- (ii) Sedimentation
- (iii) Lambert's Law
- (iv) Bouin's fixative
- (v) Meyer's Albumin
- (vi) Xylene
- (vii) Shotgun cloning
- (viii) R Nase-A
- (ix) Adaptors
- (x) BLAST
- (xi) TrEMBL
- (xii) Mode.

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