

Third Semester B. Sc. Examination

ZOOLOGY

Paper – II
(Genetics)

Time : Three Hours]

[Max. Marks : 50

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

1. What are plasmids ? Give an account of types of plasmids and its significance.

OR

Write notes on :—

(A) Monohybrid cross.
(B) Dominant Epistasis.

2. Give an account of basic concept and types of linkages.

OR

Write notes on :—

(A) CO_2 sensitivity in **Drosophila**.
(B) Phenylketonuria.

3. Describe in detail the genic balance theory of sex determination in **Drosophila**.

OR

Write notes on :—

(A) Duplication.
(B) Turner's Syndrome.

4. Explain Hardy-Weinberg's Law of equilibrium and its significance.

OR

Write notes on :—

(A) Lethal genes.
(B) Amniocentesis.

5. Write **Four** or **Five** lines on the following (Any **Ten**)

(i) Alleles
(ii) Codominance
(iii) Outbreeding
(iv) Genome
(v) Kappa particles
(vi) Recon
(vii) Heterogametic females
(viii) Silent mutation
(ix) Chemical mutations
(x) Nitrocellulose membrane
(xi) Purpose of genetic counseling.
(xii) Sperm bank.