



B.Sc. I Semester Degree Examination, April/May - 2024

ZOOLOGY

Cytology, Genetics and Infectious Diseases

(NEP)

Time : 2 Hours

Maximum Marks : 60

-
- Note :** (i) Answer **all** the questions.
(ii) Draw diagrams wherever necessary.
-

SECTION - A

Answer the following sub-questions in **one word** or in **one sentence** each. **10x1=10**

1. (a) Define Exocytosis.
- (b) What is Electron Transport System ?
- (c) Mention two chemical differences between DNA and RNA.
- (d) Name the types of Cell Signaling.
- (e) What is Pedigree and Sibs ?
- (f) Define Dosage compensation.
- (g) What are Sex-influenced Genes ? Give example.
- (h) Define Cytoplasmic Inheritance.
- (i) Mention the vector of Trypanosoma.
- (j) Write the Karyotype of Down's and Turner's Syndrome.

SECTION - B

Answer **any four** of the following questions.

4x5=20

2. Explain the structure and functions of Ribosomes with labelled sketch.
3. Sketch and explain Clover leaf model t-RNA.
4. Briefly explain XX-XO type of Sex-determination with suitable example.
5. Write a short note on Maternal Genetic effect.
6. Sketch and label Wuchereria.
7. What are Chromosomes ? Classify the chromosomes based on their position of Centromere.



SECTION - C

Answer **any three** of the following questions.

3x10=30

8. Describe the Life cycle and Pathogenicity of Giardia.
9. Describe the inheritance of ABO Blood group in Human beings.
10. State Law of Independent Assortment. Explain it by taking Guinea Pig as an example.
11. What is Cell Division ? Describe the different stages of Mitosis with labelled diagrams.
12. Describe the following :
 - (a) Oxidative Phosphorylation.
 - (b) Structure and functions of Microtubules.

- o o o -

