



B.Sc. I Semester Degree Examination, March/April - 2023

ZOOLOGY

Cytology, Genetics and Infectious Diseases

(NEP)

Time : 2 Hours

Maximum Marks : 60

Note : (i) Answer **all** sections.

(ii) Draw labelled diagrams whenever necessary.

SECTION - A

1. Answer the following sub-questions in **one** word or **one** sentence each. **10x1=10**
- (a) What do you mean by Penetrance ?
 - (b) What is cell theory ?
 - (c) Define elephantiasis.
 - (d) What is Apoptosis ?
 - (e) Name the vector of Trypanosoma.
 - (f) What is Autocrine signalling ?
 - (g) What is sex linked inheritance ?
 - (h) Expand ECM and ATP.
 - (i) What is Maternal inheritance ?
 - (j) What is dominant epistasis ?

SECTION - B

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

4x5=20

- 2. Explain the type and inheritance of sex determination.
- 3. Briefly explain the steps for intercellular signalling.
- 4. Explain the ultra structure of polytene chromosome with a neat labelled diagram.
- 5. Write a short note on 'inheritance' of colour blindness and its effects in human beings.
- 6. Explain the inheritance of comb pattern in fowls.
- 7. Briefly explain the structure and functions of Ribosomes.



SECTION - C

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

3x10=30

8. Describe the polygenic inheritance in human beings.
9. Describe Singer and Nicholson's fluid Mosaic model of Plasma Membrane. Add a note on its functions.
10. Write a detailed note on second law of Mendel by taking an appropriate example.
11. Describe the different stages of the prophase-I of meiosis with the help of labelled diagram.
12. Discuss the life cycle and Pathogenesis, Symptoms, prevention and diseases caused by Giardia lamblia. (Giardia lamblia)

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