

B.Sc. Semester - 4 (NEP-2020) Examination

March/April-2026

**ZOO: Non-chordates -3, Genetics, Developmental Biology and Applied Zoology
(Major-8)**

Time: 2:00 Hours

Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Answer the following questions. (10)

- (1) Write general characters and classification of phylum Mollusca up to class with examples.
- (2) Explain digestive system of *Pila globosa*.

OR

Que.1 Answer the following questions.

- (1) Explain male reproductive system of *Pila globosa*.
- (2) Write short note torsion and detorsion in Gastropoda.

Que.2 Answer the following questions. (10)

- (1) Write general characters and classification of phylum Echinodermata up to class with examples.
- (2) Describe Typical water vascular system of Echinodermata.

OR

Que.2 Answer the following questions.

- (1) Write general characters and classification of phylum Hemichordata up to class with examples.
- (2) Describe affinities of Balanoglossus.

Que.3 Answer the following questions. (10)

- (1) Explain Pleiotropy and Epistasis.
- (2) Write note on cytoplasmic inheritance with example of Paramecium.

OR

Que.3 Answer the following questions.

- (1) Describe Types of Chromosome according to Centromere.
- (2) Write a note on Human Chromosome and Karyotyping.

Que.4 Answer the following questions. (10)

- (1) Write note on Parthenogenesis.
- (2) Explain regeneration in Hydra.

Que.4 Answer the following questions.

- (1) Write note on insects affecting human health: (1) House Fly (2) Mosquito.
- (2) Write note on insect pest management: (i) Cultural Control (ii) Biological Control.

Que.5 Answer the following questions. (10)

- (1) Write about economic importance of Mollusca.
- (2) Describe Bipinnaria larva of echinodermates.

OR

Que.5 Answer the following questions.

- (1) Describe Polytene Chromosome.
- (2) Write note on Insects damaging household goods: (1) Termite (2) Silver Fish.
