

U.G. 1st Semester Examination-2025

ZOOLOGY

[MAJOR]

Course Code : ZOO-MJ-T-101

(Taxonomy and Introduction to Non-Chordates)

[NEP-2020]

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** of the following: 2×5=10
- a) What do you mean by Linnaean hierarchy?
 - b) What is pseudopodia? State its function.
 - c) What is a cnidoblast? Mention its functions.
 - d) Why is *Physalia* called the Portuguese man-of-war?
 - e) Define Loeffler syndrome.
 - f) State two differences between simple eyes (ocelli) and compound eyes in insects.
 - g) What is meant by Chiastoneury?
 - h) Mention two functions of tube feet in Echinodermata.

[Turn over]

2. Answer any **two** of the following: $5 \times 2 = 10$
- Discuss the scheme of classification of the phylum Annelida up to the level of subclass, giving suitable examples.
 - Describe the sycon type of canal system in Porifera with the help of a neat, labeled diagram.
 - Explain the sol-gel theory of locomotion in *Amoeba* with a suitable diagram.
 - Define the Law of Priority in taxonomy with an example. State the important rules of the International Commission on Zoological Nomenclature (ICZN). $2+3$
3. Answer any **two** of the following: $10 \times 2 = 20$
- What is biological species concept? Distinguish between homonymy and synonymy in taxonomy. Write a short note on spicules in sponges. $2+3+5$
 - Describe the process of torsion in gastropods. Describe the water vascular system in Asteroidea with the help of neat, labeled diagrams. $5+5$
 - Draw and describe the septal nephridia in Annelida with the help of a neat, labeled diagram. Give a note on the modifications of the foot in Mollusca, citing suitable examples. $4+6$
 - Explain how insects adapt their visual system to diurnal and nocturnal habits? Give an account of the various types of coral reefs. $5+5$