

Post Graduate Teaching Department of Zoology

An Autonomous Department of
RTM, Nagpur University, Nagpur
M. Sc. Zoology Semester -I (CBCS)
Theory Examination Winter-2023

Paper: 1T1- Structure and function of Invertebrates

Time: 3 hrs.

Maximum Marks: 60

Note:

1. All questions are compulsory.
2. All questions carry equal marks.
3. Draw suitable diagrams wherever necessary.

1: Describe in detail the basic concepts of biosystematics.

OR

Write notes on:-

- (a) Ultrastructure of cilia.
- (b) Leuconoid type of canal system in sponges.

2: Describe in detail the excretory system and mechanism of excretion in annelids with specific example.

OR

Write notes on:-

- (a) Classification of coelomates based on coelom formation.
- (b) Structural comparison of Coelenterata and Ctenophora.

3: Describe in detail the filter feeding mechanism in invertebrates.

OR

Write notes on:-

- (a) Affinities and taxonomic position of Peripatus.
- (b) Organs and mechanism of respiration in Arthropoda.

4: Describe in detail the structure and functions of water vascular system in Echinodermata.

OR

Write notes on:-

- (a) Systematic position and general organisation of Bryozoa.
- (b) Mechanism of locomotion in invertebrates based on hydrostatic skeleton.

5: Write in brief on followings:-

- (a) Molecular taxonomy.
- (b) Metamerism.
- (c) Affinities of Neopilina.
- (d) Auricularia larva.