2025

ZOOLOGY

(Honours Core)

Paper : ZOO–HC–2016

(Non-Chordates–II)

Full Marks : 60

Time : Three hours

*The figures in the margin indicate
full marks for the questions.*

1. Choose the correct option : 1×7=7

   (a) Echinoderms are

      (i) Radially symmetrical in adult

      (ii) Radially symmetrical in larval stage

      (iii) Bilaterally symmetrical in adult

      (iv) All of the above

   (b) Which of the following cells maintains a current of water in sponges ?

      (i) procyte

      (ii) monocyte

(iii) chromocyte

(iv) choanocyte

(c) The legs of polychaetes are called as

(i) Pseudopodia

(ii) Parapodia

(iii) Cirri

(iv) Claws

(d) 'Miracidium' is one of the stages in the development of

(i) Fasciola hepatica

(ii) Taenia solium

(iii) Ascaris lumbricoides

(iv) Planaria

(e) The adult Echinoderm shows which of the following symmetry ?

(i) Bilateral

(ii) Radial

(iii) Transverse

(iv) Biradial

(f) Torsion found in

(i) Gastropoda

(ii) Arthropoda

(iii) Cephalopoda

(iv) Decapoda

(g) A hormone that helps in insect metamorphosis (moult) is

(i) ADH

(ii) Estrogen

(iii) Androgen

(iv) Ecdyson

2. Answer in short : 2×4=8

(i) What do you mean by coelom ?

(ii) Write about the 'Cysticircus or Bladder-worm' of Taenia Solium.

(iii) Distinguish between 'Polyp and Medusa'.

(iv) Write the advantage of torsion in Gastropoda

3. Write short notes on **any three** of the following : 5×3=15

(i) Compound eye in Insect

(ii) Aristotle's Lantern

(iii) Mechanism of locomotion in Asteroidea

(iv) Onichophora

(v) Caste system of termites

4. (a) Give an account of Metamorphosis found in Arthropoda. Describe the role of different hormones in the process of Metamorphosis. 5+5=10

Classify the phyllum Mollusca upto class giving diagnostic characters and examples of each class.

(b) Give an account of Metamerism in Annilida with special reference to evolution of segmentation.   5+5=10

Or

"Onychophora is the connecting link between Annelida and Arthropoda." Justify.

(c) What do you mean by Polymorphism ? Give an account of polymorphism in Hydra.   1+9=10

Or

What do you mean by Adaptation ? Write about the parasitic adaptation in Helminths.