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3 (Sem - 1/CBCS) ZOO HC 1

2025

ZOOLOGY

(Honours)

Paper : ZOO-HC-1016

**[Non-Chordates-I (Protista to
Pseudocoelomates)]**

Full Marks : 60

Time : Three hours

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

1. Choose the correct answer : **(any seven)**

1×7=7

(a) The body of sponges is mainly composed of

(i) spongin fibres

(ii) mesoglea

(iii) spicules

(iv) nematoblasts

- (b) Secondary host of *Taenia solium* is
- (i) cow
 - (ii) man
 - (iii) sheep
 - (iv) pig
- (c) *Entamoeba histolytica* differs from *Amoeba proteus* due to absence of
- (i) contractile vacuole
 - (ii) pseudopodia
 - (iii) binary fission
 - (iv) multiple fission
- (d) In flatworms, the excretory organs are
- (i) archaeocytes
 - (ii) solenocytes
 - (iii) nephrons
 - (iv) nephridia
- (e) Animals devoid of respiratory, excretory and circulatory organs are
- (i) liver fluke
 - (ii) tapeworms
 - (iii) threadworms
 - (iv) sponges

- (f) Classification of phylum Porifera mainly based on
- (i) canal system
 - (ii) spicules
 - (iii) shape of choanocytes
 - (iv) archaeocytes
- (g) The infective stage of *Entamoeba histolytica* is
- (i) sporozoite
 - (ii) minuta form
 - (iii) mature cyst
 - (iv) trophic form
- (h) Which of the following does not have any alimentary canal?
- (i) *Taenia*
 - (ii) Frog
 - (iii) Earthworm
 - (iv) *Ascaris*

(i) Which of the following belongs to Anthozoa ?

(i) Aurelia

(ii) Fungia

(iii) Stercularia

(iv) Dugesia

2. Match the following Column—I with Column—II : **(any four)** $2 \times 4 = 8$

(a) Column—I	Column—II
(i) Statocyst	(1) Coral formation
(ii) Ctenophora	(2) Skeleton of a solitary coral
(iii) Corallite	(3) Sense organ
(iv) Millepora	(4) Triploblastic origin of tissue

(b) Column—I	Column—II
(i) Anthozoa	(1) Radial or biradial
(ii) Hydrozoa	(2) Medusoid
(iii) Scyphozoa	(3) Polypoid
(iv) Cnidaria	(4) Pennatula

(c) Column—I	Column—II
(i) Euglena	(1) Medusa
(ii) Ctenophores	(2) Offense and defense
(iii) Obelia	(3) Photosynthetic protist
(iv) Dactylozoid	(4) Hermaphrodite

(d) Column—I	Column—II
(i) Ctenophora	(1) <i>Limnea</i>
(ii) Obelia	(2) Gammule
(iii) <i>Fasciola</i>	(3) Medusa
(iv) Freshwater sponges	(4) Swimming plates

(e) Column—I	Column—II
(i) Cilia	(1) Flagella
(ii) Minuta form	(2) <i>Plasmodium</i>
(iii) Signet ring	(3) Entamoeba
(iv) <i>Euglena</i>	(4) <i>Paramoecium</i>

(f) Column—I	Column—II
(i) Coller cell	(1) Amphiblastula
(ii) Sycon	(2) Glass rope sponge
(iii) Hyalonema	(3) Storage cells
(iv) Theocytes	(4) Choanocytes

3. Answer **any three** from the following questions : $5 \times 3 = 15$

(a) Discuss about the different types of spicules of sponges with necessary diagram.

(b) Write about the pathogenicity of *Wuchereria bancrofti*.

(c) Discuss about the different types of locomotory organs in Protista. Add a note on their significance.

(d) Write about the evolutionary significance of Ctenophora.

(e) Classify the phylum Nematelminthes with general characters up to class and give examples.

4. Answer **any three** from the following :

$10 \times 3 = 30$

(a) Write an essay on polymorphism in Cnidaria.

(b) Write short notes on **any two** from the following : $5 \times 2 = 10$

(i) Parasitic adaptation in helminths

(ii) Metagenesis in obelia

(iii) Corals and coral reefs

(c) Discuss the life cycle of *Taenia solium* with necessary diagrams.

(d) Write an essay on the evolution of symmetry and segmentation of Metazoa with necessary illustrations.

(e) Describe the canal system in Porifera with necessary illustrations.

(f) Discuss the life history of *Plasmodium vivax* with necessary diagrams. Add a note on its pathogenicity. $8 + 2 = 10$