

3 (Sem-1/CBCS) ZOO HC 1

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ZOOLOGY

(Honours)

Paper : ZOO-HC-1016

(Theory)

Full Marks : 60

Time : 3 hours

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

1. Choose the correct answer (any seven) : $1 \times 7 = 7$

**(a) Which of the following belongs to
Anthozoa?**

(i) Aurelia

(ii) Fungia

(iii) Stercularia

(iv) Dugesia

(b) Which of the following does not have any alimentary canal?

(i) *Taenia*

(ii) Frog

(iii) Earthworm

(iv) *Ascaris*

(c) The infective stage of *Entamoeba histolytica* is

(i) sporozoite

(ii) minuta form

(iii) mature cyst

(iv) trophic form

(d) Classification of phylum Porifera mainly based on

(i) canal system

(ii) spicules

(iii) shape of choanocytes

(iv) archaeocytes

(e) Animals devoid of respiratory, excretory and circulatory organs are

(i) liver fluke

(ii) tapeworms

(iii) threadworms

(iv) sponges

(f) In flatworms, the excretory organs are

(i) archaeocytes

(ii) solenocytes

(iii) nephrons

(iv) nephridia

(g) *Entamoeba histolytica* differs from *Amoeba proteus* due to absence of

(i) contractile vacuole

(ii) pseudopodia

(iii) binary fission

(iv) multiple fission

(h) Secondary host of *Taenia solium* is

(i) cow

(ii) man

(iii) sheep

(iv) pig

(i) The body of sponges is mainly composed of

- (i) spongin fibres
- (ii) mesoglea
- (iii) spicules
- (iv) nematoblasts

2. Match the following Column—I with Column—II (any four) : 2×4=8

- (a)
- | <i>Column—I</i> | <i>Column—II</i> |
|-----------------|-----------------------|
| (i) Coller cell | (1) Amphiblastula |
| (ii) Sycon | (2) Glass rope sponge |
| (iii) Hyalonema | (3) Storage cells |
| (iv) Theocytes | (4) Choanocytes |

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

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

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

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

(f)	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

3. Answer any *three* from the following questions : 5×3=15

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

(b) Write about the evolutionary significance of Ctenophora.

- (c) Discuss about the different types of locomotory organs in Protista. Add a note on their significance.
- (d) Write about the pathogenicity of *Wuchereria bancrofti*.
- (e) Discuss about the different types of spicules of sponges with necessary diagram.
4. Answer any *three* from the following : $10 \times 3 = 30$
- (a) Discuss the life history of *Plasmodium vivax* with necessary diagrams. Add a note on its pathogenicity. $8+2=10$
- (b) Describe the canal system in Porifera with necessary illustrations. 10
- (c) Write an essay on the evolution of symmetry and segmentation of Metazoa with necessary illustrations. 10
- (d) Discuss the life cycle of *Taenia solium* with necessary diagrams. 10

(e) Write short notes on any *two* from the following : 5×2=10

(i) Parasitic adaptation in helminths

(ii) Metagenesis in obelia

(iii) Corals and coral reefs

(f) Write an essay on polymorphism in Cnidaria. 10

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