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3 (Sem-1/CBCS) ZOO HC 1

2022

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)**

$1 \times 7 = 7$

(a) Euglena belongs to class

(i) Zoomastigophora

(ii) Mastigophora

(iii) Actinopoda

(iv) Phytomastigophora

Contd.

(b) Flagellated cell in sponges are called

- (i) Pinacocytes
- (ii) Choanocytes
- (iii) Porocytes
- (iv) Thesocytes

(c) Defence structure in Cnidaria is called

- (i) Blastostyles
- (ii) Gonozoids
- (iii) Nematocysts
- (iv) Nectocalyx

(d) The infective stage to primary host of *Fasciola* is

- (i) Miracidium
- (ii) Sporocyst
- (iii) Metacercaria
- (iv) Cercaria

(e) Beroe is the example of

- (i) Porifera
- (ii) Ctenophora
- (iii) Cnidaria
- (iv) Platyhelminthes

(f) In Protista the division of parent organism into several daughter individuals is by

- (i) Plasmotomy
- (ii) Budding
- (iii) Multiple fission
- (iv) Binary fission

(g) Elephantiasis is transmitted by

- (i) Mosquito
- (ii) Housefly
- (iii) Bedbug
- (iv) Fruitfly

(h) Infective stage of *Ascaris* to man is

- (i) fertilized egg prior to development
- (ii) embryonated eggs
- (iii) larva after third moult
- (iv) larva after fourth moult

(i) Polymorphism is the phenomenon found in the class

- (i) Anthozoa
- (ii) Scyphozoa
- (iii) Hydrozoa
- (iv) Cubozoa

- (j) Cuticle of *Ascaris* is adapted for
- (i) respiration
 - (ii) defence from host
 - (iii) locomotion
 - (iv) reproduction
- (k) Intermediate host in the life cycle of *Fasciola hepatica* is
- (i) Pig
 - (ii) Snail
 - (iii) Crab
 - (iv) Rat flea
- (l) Metridium is commonly known as
- (i) Sea fur
 - (ii) Sea pen
 - (iii) Sea anemone
 - (iv) Sea fan

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

(a)	Column-I	Column-II
(i)	Euspongia	(i) Amoeba
(ii)	Pseudopodia	(ii) Planula larva
(iii)	Plasmodium	(iii) Bath Sponge
(iv)	Cnidaria	(iv) Schizogony

(b)	Column-I	Column-II
(i)	Hydrozoa	(i) Six ray Spicule
(ii)	Pinacoderm	(ii) Cestoidea
(iii)	Hexactinellida	(iii) Polymorphism
(iv)	Anaerobic respiration	(iv) Scypha

(c)	Column-I	Column-II
(i)	Gorgonia	(i) Pennatula
(ii)	Alcyonium	(ii) Sea fan
(iii)	Euplectella	(iii) Dead man's finger
(iv)	Sea pen	(iv) Venus's flower basket

(d)	Column-I	Column-II
(i)	Paramecium	(i) Parenchymula
(ii)	Muscular Pharynx	(ii) Cnidaria
(iii)	Diploblastic	(iii) Filter feeder
(iv)	Porifera	(iv) Aschelminthes

(e)	Column-I	Column-II
(i)	Microfilaria	(i) Obelia
(ii)	Comb Jelly	(ii) Trematoda
(iii)	Polyp	(iii) Ctenophora
(iv)	Fasciola	(iv) Elephantiasis

(f)	Column-I	Column-II
(i)	Proglottids	(i) Ostia and Osculum as opening
(ii)	Ctenophora	(ii) Cnidaria
(iii)	Porifera	(iii) Comb like ciliary plate
(iv)	Stinging cell	(iv) Large number of segments

(g)	Column-I	Column-II
(i)	Brain Coral	(i) Physalia
(ii)	Pneumatophore	(ii) Coral reef
(iii)	Pinocytosis	(iii) Meandrina
(iv)	Attol	(iv) Protista

(h)	Column-I	Column-II
(i)	Offence and Defense	(i) Euglena
(ii)	Palmella stage	(ii) Spongocoel
(iii)	Sporulation	(iii) Dactylozooid
(iv)	Porifera	(iv) Amoeba

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

(a) Write the process of transverse binary fission in *Paramecium* with proper diagram.

- (b) Explain different type of flagella movement of *Protista* with suitable diagram.
- (c) Mention the function of canal system in *Porifera*.
- (d) Describe the defense mechanism in *Cnidaria*.
- (e) Discuss the resemblance and differences of *Ctenophora* with *Cnidaria*.
- (f) Write briefly the parasitic adaptation of *Ascaris*.
- (g) Write erythrocytic cycle of *Plasmodium* with suitable diagram.
- (h) Draw a neat and labelled diagram of life cycle of *Fasciola hepatica*.

4. Answer **any three** from the following questions : $10 \times 3 = 30$

- (a) Describe the locomotory organelles of protozoa. Write briefly the amoeboid movement specially mention Sol-gel theory. $6 + 4 = 10$
- (b) What is skeleton in sponges? Give detail account on types and development of spicules. $2 + 4 + 4 = 10$

- (c) What is amoebiasis? Describe the life history and pathogenesis of the organism causing amoebiasis.

1+5+4=10

- (d) Describe evolution of symmetry and segmentation of Metazoa.

5+5=10

- (e) What is a coral reef? Mention the mechanism of formation and types of coral reef with significance.

1+3+4+2=10

- (f) Describe the life cycle and pathogenicity of *Wuchereria bancrofti* with schematic representation.

6+4=10

- (g) What are the important characters of class Cestoda? Write in brief the symptoms, treatment and prevention of *Taeniosis*.

4+2+2+2=10

- (h) Write six distinctive characters of Porifera. Classify the phylum Porifera mentioning *three* characters of each class with example.

3+7=10