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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)**  
1×7=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) *Beroë* 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) 2×4=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>(b)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Hydrozoa	(i) Six ray Spicule
	(ii) Pinacoderm	(ii) Cestoidea
	(iii) Hexactinellida	(iii) Polymorphism
	(iv) Anaerobic respiration	(iv) Scypha
<b>(c)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Gorgonia	(i) Pennatula
	(ii) Alcyonium	(ii) Sea fan
	(iii) Euplectella	(iii) Dead man's finger
	(iv) Sea pen	(iv) Venus's flower basket
<b>(d)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Paramecium	(i) Parenchymula
	(ii) Muscular Pharynx	(ii) Cnidaria
	(iii) Diploblastic	(iii) Filter feeder
	(iv) Porifera	(iv) Aschelminthes
<b>(e)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Microfilaria	(i) Obelia
	(ii) Comb Jelly	(ii) Trematoda
	(iii) Polyp	(iii) Ctenophora
	(iv) Fasciola	(iv) Elephantiasis

<b>(f)</b>	<b>Column-I</b>	<b>Column-II</b>
	(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

<b>(g)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Brain Coral	(i) Physalia
	(ii) Pneumatophore	(ii) Coral reef
	(iii) Pinocytosis	(iii) Meandrina
	(iv) Atoll	(iv) Protista

<b>(h)</b>	<b>Column-I</b>	<b>Column-II</b>
	(i) Offence and Defense	(i) Euglena
	(ii) Palmella stage	(ii) Spongocoel
	(iii) Sporulation	(iii) Dactylozoid
	(iv) Porifera	(iv) Amoeba

3. Answer **any three** from the following questions : 5×3=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 : 10×3=30

- (a) Describe the locomotary 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.  $3+7=10$
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