Total number of printed pages-8

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.

- Flagellated cell in sponges are called (b) Pinacocytes (i) Choanocytes (ii) (iii) **Porocytes** Thesocytes (iv) Defence structure in Cnidaria is called (c) (i) Blastostyles Gonozoids (ii) · (iii) Nematocysts Nectocalyx (iv) The infective stage to primary host of (d) Fasciola is Miracidium (i) (ii) Sporocyst

  - Metacercaria (iii)
  - Cercaria (iv)
  - Beroe is the example of (e)
    - (i) Porifera
    - Ctenophora (ii)
    - Cnidaria (iii)
    - Platyhelminthes (iv)

- (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) Scyhozoa
  - (iii) Hydrozoa
  - (iv) Cubozoa

	(j)	Cut	icle of Ascaris	is a	dapted for			
		(i)	respiration					
*		(ii)	defence from	hos	t ·			
		(iii)	locomotion					
		(iv)	reproduction					
	(k)		rmediate host ciola hepatica i		the life cycle of			
		(i)	Pig	9945				
		(ii)	Snail		· .			
		(iii)	Crab					
		(iv)	Rat flea					
	(l)	Met	Metridium is commonly known as					
		(i)	Sea fur		a <u>r</u>			
		(ii) .	Sea pen					
		(iii)	Sea anemone					
		(iv)	Sea fan					
21				2 -				
2.			the followin					
	Col	umn	-II : (any fou	T)	2×4=8			
÷	(a)	pr.	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
at at 1 e	(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	(ἱυ)	Elephantiasis

	(f)		Column-I	170	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
			<b>2</b> 00		

- 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=10
- (h) Write six distinctive characters of Porifera. Classify the phylum Porifera mentioning three characters of each class with example. 3+7=10