

- (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

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)** 1×7=7
- (a) Euglena belongs to class
- (i) Zoomastigophora
- (ii) Mastigophora
- (iii) Actinopoda
- (iv) Phytomastigophora

- (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
- respiration
 - defence from host
 - locomotion
 - reproduction
- (k) Intermediate host in the life cycle of *Fasciola hepatica* is
- Pig
 - Snail
 - Crab
 - Rat flea
- (l) Metridium is commonly known as
- Sea fur
 - Sea pen
 - Sea anemone
 - 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) Atoll	(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 : 5×3=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 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