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3 (Sem–1/CBCS) ZOO HC 1

2021

(Held in 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) In Paramecium the division of macronucleus during binary fission is

   (i) mitotic

   (ii) amitotic

Contd.

(iii) meiotic

(iv) prenuclear

(b) Water enters the body of sponges through

(i) ostia

(ii) osculum

(iii) radial canal

(iv) spongocoel

(c) Infective stage of *Entamoeba histolytica* is

(i) sporozoite

(ii) quadrinucleate cyst

(iii) trophozoite

(iv) spore

(d) Ctenophores display

(i) spherical symmetry

(ii) cylindrical symmetry

(iii) biradial symmetry

(iv) bilateral symmetry

(e) 'Portuguese man of war' is the common name of

(i) Velella

(ii) Physalia

(iii) Aurelia

(iv) Pennatula

(f) Rhabdites are characteristic of

(i) Cnidaria

(ii) Ctenophora

(iii) Platyhelminthes

(iv) Nemathelminthes

(g) The first larval form in liver fluke is

(i) redia

(ii) metacercaria

(iii) miracidium

(iv) cercaria

(h) Female culex mosquito is the vector of

(i) malaria

(ii) dengue

(iii) elephantiasis

(iv) ascariasis

(i) In which of the following the nuclear dimorphism is seen ?

(i) Entamoeba

(ii) Euglena

(iii) Paramecium

(iv) Trypanosoma

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

(a)	**Column–I**	**Column–II**
(i)	Oligohymenophora	(1) Euglena
(ii)	Lobosa	(2) Plasmodium
(iii)	Phytomastigophora	(3) Paramecium
(iv)	Sporozoa	(4) Amoeba

(b)	**Column–I**	**Column–II**
(i)	Metagenesis	(1) Porifera
(ii)	Pinocytosis	(2) Cnidaria
(iii)	Spicule	(3) Protista
(iv)	Colloblast	(4) Ctenophora

(c)	**Column–I**	**Column–II**
(i)	Glass water sponge	(1) Beroe
(ii)	Coral reef	(2) Schizogony
(iii)	Asexual cycle	(3) Hyalonema
(iv)	Ctenophora	(4) Atoll

(d)	**Column–I**	**Column–II**
(i)	Vorticella	(1) Flagella
(ii)	Euglena	(2) Myonemes
(iii)	Cillia	(3) Pseudopodia
(iv)	Amoeba	(4) Paramecium

(e)	**Column–I**	**Column–II**
(i)	Spongilla	(1) Food capture process of Protista
(ii)	Mesoglea	(2) Freshwater sponge
(iii)	Phagocytosis	(3) Minuta form
(iv)	Entamoeba hystolytica	(4) Fibrous connective tissue

(f)

Column–I	Column–II
(i) Flame cell	(1) Developmental stage of Tapeworm
(ii) Nematocysts	(2) Organ of excretion in Flatworm
(iii) Bladder worm	(3) Protective organ of Cnidaria
(iv) Binary fission	(4) Asexual reproduction in Protozoa

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

(a) Explain the phase of ciliary movement in Protista with suitable diagram.

(b) Mention the distinguishing characters of phylum, *Ctenophora*.

(c) Discuss the role of intermediate host in propagation of *Fasciola*.

(d) Write the process of endomixis in *Paramecium* with a proper diagram.

(e) Describe the mode of infection and transmission of *Wuchereria bancrofti*.

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

(a) Describe the asexual cycle of *Plasmodium vivax* with suitable diagram. Mention the pathogenicity of *Plasmodium*. 7+3=10

(b) What is canal system ? Write the canal system in Sycon with its significance. 2+6+2 =10

(c) What is polymorphism ? Describe polymorphism in hydrozoa mentioning the role of zooids through illustration. 2+8=10

(d) Define metamerism. Write on various theories of origin of metamerism and its significance. 2+(6+2)=10

(e) What is parasitic adaptation ? Discuss on morphological and physiological adaptation encountered in helminths. 2+8=10

(f) What are sexual dimorphic characters in *Ascaris* ? Describe the life cycle with diagram. Write the control measure of ascariasis . 2+6+2=10
