2023

(CBCS)

(6th Semester)

ZOOLOGY

ELEVENTH PAPER

(Parasitology and Immunology)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(*Marks* : 10)

Tick (✓) the correct answer in the brackets provided : 1×10=10

1. Epimastigotes are found only in

(a) mosquitoes ( ) *(b)* freshwater snails ( )

(c) sand flies ( ) *(d)* tsetse flies ( )

2. Haemozoin is the waste product of the digestion of

(a) haemocyanin ( ) *(b)* blood ( )

(c) bile juice ( ) *(d)* neurone ( )

3. The larva of *Taenia saginata* is called

(a) *Cysticercus bovis* ( )

(b) miracidium ( )

(c) *Cysticercus cellulosae* ( )

(d) merozoite ( )

4. The infective stage of *Fasciola hepatica* for transmission to mammals is

(a) trypomastigote ( ) *(b)* sporozoite ( )

(c) metacercaria ( ) *(d)* ookinete ( )

5. *Ascaris lumbricoides* infection is only from the stage known as

(a) rhabditiform ( )

(b) procyclic ( )

(c) L3 ( )

(d) trophozoite ( )

6. Ventral suckers are present only in

(a) cestodes ( )

(b) trematodes ( )

(c) protozoans ( )

(d) nematodes ( )

7. Which of the following cells are not involved in immune response?

(a) Fibroblasts ( )

(b) Epithelial cells ( )

(c) Mast cells ( )

(d) Hepatocytes ( )

8. Paratope is an immunological binding site on

(a) antibody ( )

(b) adjuvant ( )

(c) antigen ( )

(d) hapten ( )

9. A pentameric IgM can bind

(a) 1 antigen ( )

(b) 5 antigens ( )

(c) 10 antigens ( )

(d) 50 antigens ( )

10. IgD is specifically associated with

(a) T lymphocytes ( )

(b) neutrophils ( )

(c) B lymphocytes ( )

(d) basophils ( )

(SECTION : B—SHORT ANSWER)

(*Marks* : 15)

Write notes on the following in *5* to *8* sentences each : 3×5=15

UNIT—I

1. Facultative parasite

OR

2. Pernicious malaria

UNIT—II

3. Neurocysticercosis

OR

4. Miracidium of *Fasciola hepatica*

UNIT—III

5. Cercariae

OR

6. Larval stages of *Ascaris lumbricoides*

UNIT—IV

7. Principle of vaccination

OR

8. Epitope

UNIT—V

9. MHC class II

OR

10. Avidity of Ab-Ag interaction

(SECTION : C—DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions : 10×5=50

UNIT—I

1. Illustrate the life cycle of *Leishmania donovani*.

OR

2. Describe the life cycle of *Plasmodium falciparum*.

UNIT—II

3. Delineate the life cycle of *Taenia solium*.

OR

4. Write an essay on the parasitic adaptations in tapeworms.

UNIT—III

5. Discuss the critical adaptations of nematodes for parasitism.

OR

6. Describe the life cycle of *Schistosoma mansoni*.

UNIT—IV

7. Give a general account on the types of cells involved in immunity.

OR

8. Write short notes on :

(a) Interferons

(b) Phagocytosis

UNIT—V

9. What is hypersensitivity? Describe the various types of hypersensitivity with examples.

OR

10. Illustrate the basic structure of an antibody based on IgG.

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