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( 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. Amastigotes occur only in the life cycle of

- (a) *Trypanosoma brucei* ( )
- (b) *Plasmodium falciparum* ( )
- (c) *Echinococcus granulosus* ( )
- (d) *Leishmania donovani* ( )

2. Tsetse flies (*Glossina* sp.) are responsible for transmitting the disease named

- (a) kala-azar ( )
- (b) nagana ( )
- (c) bilharzia ( )
- (d) paludisme ( )

- 3.** *Cysticercus bovis* is the larva of  
 (a) *Fasciola hepatica* ( )  
 (b) *Taenia solium* ( )  
 (c) *Taenia saginata* ( )  
 (d) *Trypanosoma brucei* ( )
- 4.** The pork tapeworm can cause clinical symptoms such as  
 (a) meningitis and epilepsy ( )  
 (b) tertian malignant fever and brain damage ( )  
 (c) liver cirrhosis and anaemia ( )  
 (d) splenomegaly and liver fibrosis ( )
- 5.** Infection of the liver is characteristic of  
 (a) *Schistosoma mansoni* ( )  
 (b) *Fasciola hepatica* ( )  
 (c) *Taenia solium* ( )  
 (d) *Ascaris lumbricoides* ( )
- 6.** Rhabditiform larvae of nematodes are formed in the  
 (a) intestine ( ) (b) trachea ( )  
 (c) water ( ) (d) soil ( )
- 7.** Antibodies are produced by the immune cells called  
 (a) macrophages ( ) (b) neutrophils ( )  
 (c) B cells ( ) (d) T cells ( )
- 8.** Virus-infected and cancerous cells can be rapidly detected by  
 (a) natural killer cells ( ) (b) dendritic cells ( )  
 (c) B cells ( ) (d) T cells ( )
- 9.** A foetus derives its antibodies from the mother only in the form of  
 (a) IgA ( ) (b) IgG ( )  
 (c) IgE ( ) (d) IgM ( )
- 10.** Immunoglobulin heavy chain (IGH) locus in human is located on chromosome number  
 (a) 2 ( ) (b) 7 ( )  
 (c) 14 ( ) (d) 22 ( )

**( SECTION : B—SHORT NOTE )**

( Marks : 15 )

Write notes on the following in 5 to 8 sentences each :

3×5=15

UNIT—I

1. Cerebral malaria

**OR**

2. Trypanosomiasis

UNIT—II

3. Cysticercosis

**OR**

4. Scolex of tapeworms

UNIT—III

5. Schistosomiasis

**OR**

6. Ascariasis

UNIT—IV

7. Dendritic cells

**OR**

8. Haptens

UNIT—V

9. Type III hypersensitivity

**OR**

10. Immunoglobulin M

( SECTION : C—DESCRIPTIVE )

( Marks : 50 )

Answer the following questions :

10×5=50

UNIT—I

1. Illustrate the life cycle of *Trypanosoma brucei*.

**OR**

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

UNIT—II

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

**OR**

4. Describe the life cycle and pathogenicity of *Fasciola hepatica*.

UNIT—III

5. Discuss the life cycle of *Ascaris lumbricoides*.

**OR**

6. Explain in detail the life cycle of *Schistosoma mansoni*.

UNIT—IV

7. Describe the components of innate immunity.

**OR**

8. Write short notes on the following :

- (a) Lymphocytes  
(b) Vaccination

UNIT—V

9. Describe the molecular structure of immunoglobulin G.

**OR**

10. Explain the types and functions of major histocompatibility complexes.

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