

2024

( 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. The vector and intermediate host for *Leishmania donovani* is

- (a) *Phlebotomus* sp. ( )      (b) *Anopheles* sp. ( )  
(c) *Glossina* sp. ( )      (d) *Aedes* sp. ( )

2. Epimastigote is found in

- (a) sandfly ( )  
(b) *Anopheles* mosquito ( )  
(c) Tsetse fly ( )  
(d) *Culex* mosquito ( )

3. The organs of attachment in flukes are two muscular cup-shaped depression called

- (a) hook ( )      (b) rostellum ( )  
(c) scolex ( )      (d) acetabulum ( )

4. The symptoms of schistosome infection are produced by its
 

(a) sporocysts ( )	(b) cercaria ( )
(c) miracidia ( )	(d) eggs ( )
5. Neurocysticercosis is caused by
 

(a) <i>Taenia solium</i> ( )	(b) <i>Echinococcus granulosus</i> ( )
(c) <i>Plasmodium vivax</i> ( )	(d) <i>Leishmania donovani</i> ( )
6. The organ which helps to attach with the mucous membrane of the host intestine in *Ascaris lumbricoides* is
 

(a) mouth bounded by three lips ( )	(b) sucker ( )
(c) hook ( )	(d) scolex ( )
7. Which cytokine is released in response to virus infection?
 

(a) Interferon ( )	(b) Monokine ( )
(c) Lymphokine ( )	(d) Interleukin ( )
8. Humoral immunity is mediated by
 

(a) B-cells ( )	(b) macrophages ( )
(c) neutrophils ( )	(d) phagocytes ( )
9. Antibodies are
 

(a) lipids ( )	(b) carbohydrates ( )
(c) nucleic acids ( )	(d) glycoproteins ( )
10. Serum sickness is caused by
 

(a) type I hypersensitivity ( )	(b) type II hypersensitivity ( )
(c) type III hypersensitivity ( )	(d) type IV hypersensitivity ( )

**( SECTION : B—SHORT ANSWERS )**

**( Marks : 15 )**

Write notes on the following :

**3×5=15**

**UNIT—I**

**1. Visceral leishmaniasis**

**OR**

**2. Cerebral malaria**

**UNIT—II**

**3. *Cysticercus cellulosae***

**OR**

**4. Parasitic adaptations in cestodes**

**UNIT—III**

**5. Schistosomiasis**

**OR**

**6. Parasitic adaptation in nematodes**

**UNIT—IV**

**7. Professional phagocytes**

**OR**

**8. Cytokines**

**UNIT—V**

**9. Antigen-antibody interaction**

**OR**

**10. Type III hypersensitivity**

( SECTION : C—DESCRIPTIVE )

( Marks : 50 )

Answer the following questions :

10×5=50

UNIT—I

1. Describe the life cycle of *Trypanosoma brucei* with a neat labelled diagram.

OR

2. Illustrate the life cycle of *Plasmodium falciparum* with a neat labelled diagram.

UNIT—II

3. Discuss the life cycle and pathogenicity of *Taenia solium*.

OR

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

UNIT—III

5. Explain parasitic adaptations in trematodes.

OR

6. Explain the life cycle and pathogenicity of *Ascaris lumbricoides*.

UNIT—IV

7. Give a brief description of innate and acquired immunity.

OR

8. Describe the principles of vaccination and clonal selection.

UNIT—V

9. Discuss the structure and types of immunoglobulins.

OR

10. Describe the structure and functions of MHC classes.

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