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( 6th Semester )

**ZOOLOGY**

Paper : ZL–XI

**( Parasitology and Immunology )**

*Full Marks : 55*

*Time : 2½ Hours*

**( PART : A—OBJECTIVE )**

*( Marks : 20 )*

*The figures in the margin indicate full marks for the questions*

SECTION—A

*( Marks : 5 )*

Tick (✓) the correct answer in the brackets provided :

1×5=5

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

(a) *Phlebotomus* sp. ( )

(b) *Anopheles* sp. ( )

(c) *Glossina* sp. ( )

(d) *Aedes* sp. ( )

**2.** Neurocysticercosis is caused by

- (a) *Taenia solium* ( )
- (b) *Echinococcus granulosus* ( )
- (c) *Plasmodium vivax* ( )
- (d) *Leishmania donovani* ( )

**3.** Complete sexual dimorphism is found in

- (a) protozoans ( )
- (b) cestodes ( )
- (c) trematodes ( )
- (d) nematodes ( )

**4.** The principle of vaccination is inoculation of disease-specific

- (a) antibodies ( )
- (b) antigens ( )
- (c) natural killer cells ( )
- (d) mast cells ( )

**5.** Serum sickness is caused by

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

SECTION—B

( Marks : 15 )

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

3×5=15

1. Visceral leishmaniasis
2. *Cysticercus cellulosae*
3. Larval forms of trematodes
4. Antigens
5. Types of vaccines

( PART : B—DESCRIPTIVE )

( Marks : 35 )

*The questions are of equal value*

1. Describe the life cycle of *Plasmodium falciparum* with the help of a neat diagram.

**OR**

Illustrate the life cycle of *Trypanosoma brucei*.

2. Discuss the life cycle of *Echinococcus granulosus*.

**OR**

Explain the parasitic adaptations in cestodes.

3. Describe the life cycle and pathogenecity of *Ascaris lumbricoides*.

**OR**

Describe the life cycle of *Schistosoma mansoni*.

4. Write an essay on innate immunity.

**OR**

Give brief description of haptens, epitope and interferons.

5. Discuss the structure and types of immunoglobulins.

**OR**

Describe the structure and function of major histocompatibility complex.

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