

2018  
ZOOLOGY — HONOURS  
Fifth Paper  
(Unit - I)  
Full Marks - 50

*The figures in the margin indicate full marks*

*Candidates are required to give their answers in their own words as far as practicable*

1. Answer **any five** questions from the following : 2×5
- (a) Mention control strategies of cholera.
  - (b) What is FLASH pasteurization ?
  - (c) What is pure culture ?
  - (d) Give one example each of Gram positive and Gram negative bacterium.
  - (e) What is defined media ?
  - (f) Name any two pathogenic species of *Shigella*.
  - (g) Distinguish between monoclonal and polyclonal antibody.
  - (h) What are CDRs of Immunoglobulin ?
  - (i) Which immunoglobulins are present in tear and milk ?

**Group - A**

Answer **any one** question from the following

2. (a) Discuss in brief the pathogenicity, epidemiology and control measures of Shigellosis. 6
- (b) Write a brief note on "Shiga toxin". 2
- (c) Write a note on clinical features of amoebiasis. 2
3. (a) Describe the phases involved in bacterial growth curve. 5
- (b) Discuss the different mode of actions of killing microbes by chemical agents with examples. 5

**Group - B**

Answer **any two** questions from the following

4. (a) Give a note on mutualism and commensalism with suitable examples. 5
- (b) What is zoonosis ? Give two examples of zoonotically transmitted helminthic diseases, mentioning their causative organisms and mode of transmission. 1+4
5. (a) What do you mean by Loeffler's syndrome ? 2
- (b) Discuss the migration of larval forms of *Ascaris* through different body parts in man. 3

[Turn Over]

- (c) Schematically represent the life cycle of *Fasciola* sp. and briefly point out the pathogenicity caused by it. 3+2
6. (a) Describe the life cycle of *Plasmodium vivax* in mosquito vector with suitable diagrams. 6
- (b) Write down briefly the vectorial attributes of mosquitoes in spreading diseases. 3
- (c) What is metacyclic promastigote? 1

### Group - C

Answer *any one* question from the following

7. (a) How extracellular and intracellular antigens are processed and presented to the cell surface? 6
- (b) In what ways T-helper and T-cytotoxic cells differ from each other? 2
- (c) Write a note on Lymphokines. 2
8. (a) Give a comparative account of IgM and IgG. 2
- (b) Describe the lectin pathway of complement activation. 2
- (c) How does innate immunity differ from acquired immunity? How do host components identify pathogens in innate immunity? 2+2
- (d) State in brief the role of dendritic cells in immunity. 2