2021

ZOOLOGY

[HONOURS]

Paper : IX

Full Marks : 50 Time : 2 Hours

The figures in the right-hand margin indicate marks.

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

1. Answer any **five** of the following: 2×5=10

   a) Write the scientific name of the causative organism and vector of elephantiasis.

   b) Define symbiosis. How it differs from commensalism?

   c) What do you mean by accidental host and paratenic host?

   d) Distinguish between affinity and avidity.

   e) What are MALT and GALT?

   f) What do you mean by erythrocytic schizogony?

   g) What is zoonosis? Give an example.

   h) Give example of one DNA virus and one RNA virus.

2. Answer any **two** of the following: 5×2=10

   a) Describe the life cycle of *Ascaris lumbricoides*. Mention its pathogenicity. 3+2=5

   b) What signals promote B-cell activation in response to an antigen? What is Dendritic cell? Comment on its significance. 3+1+1=5

   c) Write down the functions of major immunoglobulin classes.

   d) Pasteurization is the most important operation in processing dairy product– justify.

3. Answer any **three** of the following: 10×3=30

   a) Write notes on (any **two**): 5+5=10

      i) Interferon

      ii) Microbiology of "Yogurt"

      iii) T-cell receptor

      iv) Opsonization

   b) Discuss the pathogenecity of shigellosis. Mention it's control measure. Describe in brief the life history stages of *Entamoeba*

histolytica with suitable illustration.

3+2+5=10

c) How does epitope differ from paratope? Distinguish between monoclonal and polyclonal antibody. Discuss the steps of monoclonal antibody production.

2+2+6=10

d) Why secondary immune response is much more effective than the primary response? Discuss critically how class-I and class-II MHC molecules help in antigen presentation with suitable diagram. 2+8=10

e) Which cells of immune system exhibit CD4 and CD8 markers? Write short note on classical pathway of complement system activation. Write functions of NK cells.

2+6+2=10