

POST-GRADUATE COURSE

Term End Examination — June, 2017

ZOOLOGY

Paper - 8A : Parasitology and Public Health

Time : 2 Hours

Full Marks : 50

(Weightage of Marks : 80%)

Special credit will be given for accuracy and relevance in the answer. Marks will be deducted for incorrect spelling, untidy work and illegible handwriting. The weightage for each question has been indicated in the margin.

1. Answer *two* questions : $9 \times 2 = 18$
- a) Describe the lymphoid organs in human body. Elaborate the origin, development and maturity of lymphocytes. $3 + 1 + 2 + 3$
- b) Describe the life history stages of *Ancylostoma duodenale*. Highlight on the pathogenicity and control of the parasite. $5 + (2 + 2)$
- c) What do you mean by Zoonotic disease ? Describe the life cycle of *Leishmania donovani*. $2 + 7$
- d) Describe the principle and technique of preparation of monoclonal antibody. Mention its importance in clinical parasitology. $7 + 2$

2. Answer *three* questions : $6 \times 3 = 18$
- a) Give idea on different types of protozoan and helminthic diseases in livestock. $3 + 3$
- b) Describe the principle and the technique of counter-current immunoelectrophoresis. Mention its importance in clinical parasitology. $2 + 4$
- c) Explain the precipitation and complement fixation in immunology. What is the significance of these in clinical parasitology ? $3 + 3$
- d) Highlight on the disease burden and epidemiology in visceral leishmaniasis. $3 + 3$
- e) Describe the antigenic variations in malarial parasites. 6
- f) Give idea on different types of filarias in man. Mention the causative organisms and their pathogenicity in brief. $2 + 2 + 2$

3. Answer *two* questions : $4 \times 2 = 8$
- a) Describe the structure of IgM. 4
 - b) Describe the process of immunoblotting and mention its importance. 2 + 2
 - c) Give idea on the importance of head louse as a vector of human diseases. 4
 - d) Highlight on the factors influencing prevalence of zoonoses. 4
4. Answer *two* questions : $3 \times 2 = 6$
- a) Describe a dendritic cell and mention its role in immunoparasitology. 2 + 1
 - b) Give idea on the 'Ranikhet' disease and mention its control measures. 2 + 1
 - c) Mention the importance of the knowledge of myiasis in the medical science. 3
 - d) Describe the ultrastructure of granulocytes with proper illustrations. 3
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