

M.Sc. Examination, 2017
Semester – IV
Zoology
Paper – MZOT – 402
(Parasitology-II)

Time: 4 Hours

Full Marks: 80

Questions are of value as indicated in the margin.

Answer *any eight* questions

1. Discuss in brief the innate and adaptive immune responses in lymphatic filariasis. 5+5
 2. a) Write in brief the cell mediated and humoral immune responses in visceral leishmania.
b) Despite advances in the understanding of immune system of the disease, why a vaccine has not developed against visceral leishmania? 4+4+2
 3. Describe in detail the host-parasite interaction in *Plasmodium falciparum*. Add a note on how the parasite induces cerebral malaria. 8+2
 4. Write in brief the immune evasion mechanism in *Schistosoma* sp. 10
 5. Enumerate the structure of VSG and its expression in *Trypanosoma gambiense*. How does VSG help the parasite to survive in the vector body as well as human host? 4+4+2
 6. Name the potential drug targets in helminth parasites. Discuss in brief why are they called potential drug targets. 2+8 =10
 7. What is chemotherapeutic index? Discuss the factors for selecting an antiparasitic compound. What could be role of GABA at the neuromuscular interaction? 2+5+3=10
 8. Name the different antimalarial drugs? Discuss in brief the mechanism of action of the most widely used antimalarial drug. Add a note on the mechanism of resistance by the parasite. 2+5+3=10
 9. Discuss the mode of action of the following anti-parasitic drugs: 5x2=10
Suramin (b) Diethylcarbamizine (c) Halofanthrine (d) Ivermectin (e) Piperzine
 10. What is PCR? How does this method help in low level of detection of malarial parasites in blood? 1+9=10
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