

Instructions: Answer all the questions

SECTION I: Multiple choice questions (20 marks)

1. What is the name of larval form of *Taenia solium*
 - a. *Cysticercus cellulosae*
 - b. Cysticercoid
 - c. *Cysticercus bovis*
 - d. Hydatid cyst
2. River blindness is caused by?
 - a. *Loa loa*
 - b. *Mansonella perstans*
 - c. *Mansonella streptocerca*
 - d. *Onchocerca volvulus*
3. Which of the following is the longest tapeworm found in man
 - a. *Diphyllobothrium latum*
 - b. *Taenia sagnata*
 - c. *Taenia solium*
 - d. *Echinococcus granulosus*
4. Which of the following is the second intermediate host of *Diphyllobothrium latum* is
 - a. Cyclops
 - b. Man
 - c. Snail
 - d. Fresh water fish
5. All of the following lead to bloody diarrhea EXCEPT?
 - a. *Schistosoma japonicum*
 - b. *Entamoeba histolytica*
 - c. *Schistosoma mansoni*
 - d. *Schistosoma hematobium*
6. Which of the following is characteristic of helminths that infect human beings?
 - a. They usually do not multiply in the host.
 - b. They rarely provoke an eosinophilia.
 - c. They cause severe disease after infection with only a few parasites.
 - d. They typically cause lifelong infections.
7. The following cause malaria attacks (paroxysms)
 - a. Release of toxins from RBC
 - b. Invasion of RBC by Merozoites
 - c. Severe hemolytic anemia
 - d. All of the above
8. There are indurations of the irregular margins of the spreading ulcer.
 - a. Amoebic granuloma
 - b. Amoeboma
 - c. Amoebiasis cutis

- d. Amoebic colitis
9. Which statement is correct regarding Chagas' disease:
- a. It is caused by *Trypanosoma brucei* complex
 - b. Human acquires the disease via the bites of infected sandflies
 - c. It causes megasyndrome in patients with prolonged illness
 - d. The most common clinical manifestation is Winterbottom's sign
10. Which Plasmodium species has a preference for old RBCs?
- a. Plasmodium falciparum
 - b. Plasmodium malariae
 - c. Plasmodium vivax
 - d. Plasmodium ovale
11. The following statements concerning *Ascaris lumbricoides* are correct except:
- a. *Ascaris lumbricoides* is one of the largest nematode
 - b. *Ascaris lumbricoides* can cause pneumonia
 - c. Both dogs and cats are intermediate hosts of *Ascaris lumbricoides*
 - d. *A. lumbricoides* is transmitted by ingestion of eggs
12. The following statements concerning kala-azar are correct except:
- a. Kala-azar is caused by *Leishmania donovani*
 - b. kala-azar is transmitted by the bite of sandflies
 - c. Kala-azar occurs primarily in rural Latin America
 - d. Kala-azar can be diagnosed by finding amastigotes in bone marrow
13. The following statements concerning hookworm infection are correct except:
- a. Hookworm infection can cause pneumonia
 - b. Hookworm infection is acquired by humans when filariform larvae penetrate the skin
 - c. Hookworm infection is caused by *Necator americanus*
 - d. Hookworm infection can be diagnosed by finding the trophozoite in the stool
14. The following statements concerning *Trichomonas vaginalis* are correct except:
- a. *T. vaginalis* is transmitted sexually
 - b. *T. vaginalis* can be diagnosed by visualizing the trophozoite
 - c. *T. vaginalis* can be treated effectively with metronidazole
 - d. *T. vaginalis* causes bloody diarrhea
15. The following statements concerning *Giardia lamblia* are correct except:
- a. *G. lamblia* has both a trophozoite and cyst stage in its life cycle
 - b. *G. lamblia* is transmitted by the fecal-oral route from both human and animal sources
 - c. *G. lamblia* causes hemolytic anemia
 - d. *G. lamblia* can be diagnosed by the string test
16. The following statements concerning malaria are correct except
- a. The female anopheles mosquito is the vector
 - b. Early infection, sporozoites enter hepatocytes
 - c. Release of merozoites from red blood cells causes fever and chills
 - d. The principal site of gametocyte formation is the human gastrointestinal tract.
17. The following parasites are transmitted by mosquitoes except:
- a. *Leishmania donovani*
 - b. *Wuchereria bancrofti*

- c. *Plasmodium vivax*
 - d. *Plasmodium falciparum*
18. 8. Pigs or dogs are the sources of human infection for each of the following parasites except:
- a. *Echinococcus granulosus*
 - b. *Taenia solium*
 - c. *Ascaris lumbricoides*
 - d. *Trichinella spiralis*
19. In malaria, the form of plasmodia transmitted from mosquito to human is the
- a. Sporozoite
 - b. Gametocyte
 - c. Merozoite
 - d. Hypnozoite
20. Which of the following agent is used to prevent malaria
- a. Mebendazole
 - b. Chloroquine
 - c. Inactivated vaccine
 - d. Zinc table

SECTION II: Short answer questions (40 marks)

- a) Describe the life cycle for *Ascaris lumbricoides* (7 marks)
- b) Outline the clinical manifestations of *Onchocerca volvulus* (8 marks)
- c) Outline the general characteristics of cestodes (6 marks)
- d) List the classification of nematodes (6 marks)
- e) With examples, describe the modes of transmission for pathogenic protozoa (4 marks)
- f) Tabulate differences between *Giardia lamblia* and *Entamoeba histolytica* (5 marks)
- g) Tabulate differences between *Trypanosoma Rhodesiense* and *Trypanosoma gambiense* (6 marks)

SECTION III: Long answer questions (40 marks)

QUESTION ONE

A 34-year-old man visited Kiambu level V Hospital presenting with abdominal discomfort, bloating and flatulence. Stool microscopy showed flagellated trophozoites.

- a) Indicate the most likely parasitic infection he was suffering from (1 mark)
- b) Describe the life cycle of the parasite while highlighting its pathogenesis (16 marks)
- c) Outline its prevention measures (3 marks)

QUESTION TWO

- a) Outline the species responsible for African trypanosomiasis (2 marks)
- b) Distinguish between the clinical manifestations of the above-mentioned species (11 marks)
- c) Describe the life cycle of African trypanosomiasis (4 marks)
- d) Outline the prevention strategies for African trypanosomiasis (3 marks)