



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SPECIAL/SUPPLEMENTARY EXAMINATIONS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
SECOND SEMESTER, 2024/2025
(AUGUST, 2025)

MELS 265: PARASITOLOGY

STREAM: Y2S2

TIME: 2 HOURS

DAY: THURSSDAY, 3:00-5:00 PM

DATE: 14/08/2025

INSTRUCTIONS

1. Do not write anything on this question paper.

SECTION A: Multiple choice questions (20 marks)

This section consists of 20 compulsory questions and each is 1 mark

1. What is the primary mode of transmission for *Entamoeba histolytica*?
 - A. Vector-borne
 - B. Fecal-oral route
 - C. Sexual contact
 - D. Airborne
2. Which of the following is a common symptom of giardiasis?
 - A. Fever
 - B. Rash
 - C. Cough
 - D. Diarrhea
3. The vector for Chagas disease is:
 - A. Anopheles mosquito
 - B. Triatomine bug
 - C. Aedes mosquito
 - D. Tsetse fly
4. *Leishmania donovani* primarily causes which disease?
 - A. Visceral leishmaniasis
 - B. Malaria
 - C. Giardiasis
 - D. Amoebic dysentery
5. Which protozoan is known for causing sleeping sickness?
 - A. *Trypanosoma brucei*
 - B. *Plasmodium falciparum*

- C. *Giardia lamblia*
 - D. *Entamoeba histolytica*
6. The main vector for Plasmodium species is:
 - A. Ticks
 - B. Anopheles mosquitoes
 - C. Sandflies
 - D. Fleas
 7. What is the primary diagnostic method for detecting *Giardia lamblia*?
 - A. Blood smear
 - B. Urine test
 - C. Stool examination
 - D. Skin biopsy
 8. Which of the following is a characteristic of *Naegleria fowleri*?
 - A. It is a helminth.
 - B. It causes malaria
 - C. It is a free-living amoeba.
 - D. It is transmitted by mosquitoes.
 9. Which protozoan is associated with the "rice-water" stool?
 - A. *Toxoplasma gondii*
 - B. *Giardia Lamblia*
 - C. *Entamoeba histolytica*
 - D. *Vibrio cholerae*
 10. Which protozoan can cause congenital infections?
 - A. *Leishmania donovani*
 - B. *Toxoplasma gondii*
 - C. *Trypanosoma brucei*
 - D. *Giardia lamblia*
 11. Which of the following is the largest human intestinal nematode?
 - A. *Enterobius vermicularis*
 - B. *Ascaris lumbricoides*
 - C. *Strongyloides stercoralis*
 - D. *Ancylostoma duodenale*
 12. The primary host for *Schistosoma mansoni* is:
 - A. Snail
 - B. Fish
 - C. Human
 - D. Mosquito
 13. Which helminth is known to cause lymphatic filariasis?
 - A. *Schistosoma haematobium*
 - B. *Taenia solium*
 - C. *Wuchereria bancrofti*
 - D. *Enterobius vermicularis*
 14. The diagnostic stage of *Giardia lamblia* is:
 - A. Cyst
 - B. Trophozoite
 - C. Egg
 - D. Larva
 15. Which of the following is a characteristic symptom of hookworm infection?
 - A. Diarrhea
 - B. Fever
 - C. Cough
 - D. Anemia

16. The mode of transmission for *Trichinella spiralis* is:
- A. Contaminated water
 - B. Undercooked pork
 - C. Insect bites
 - D. Contaminated vegetables
17. Which of the following parasites can cause a condition known as "river blindness"?
- A. *Schistosoma mansoni*
 - B. *Taenia saginata*
 - C. *Onchocerca volvulus*
 - D. *Ancylostoma duodenale*
18. Which of the following is NOT a cestode?
- A. *Taenia saginata*
 - B. *Echinococcus granulosus*
 - C. *Ancylostoma duodenale*
 - D. *Dipylidium caninum*
19. The primary symptom of enterobiasis is:
- A. Abdominal pain
 - B. Anal itching
 - C. Diarrhea
 - D. Fever
20. The infective stage of *Schistosoma* is:
- A. Egg
 - B. Cercaria
 - C. Miracidium
 - D. Adult worm

SECTION B: Short answer questions (20 marks)

This section consists of 4 compulsory questions and each is 5 marks

1. Outline the differences between *Taenia saginata* and *Taenia solium*. (5 Marks)
2. Briefly describe the clinical manifestations of hookworm infection. (5 Marks)
3. Explain briefly the methods of reproduction for protozoan parasites. (5 marks)
4. Briefly describe the life cycle of the protozoan responsible for chagas disease. (5 Marks)

SECTION C: (30 MARKS) – Essay -Type Questions

ANSWER TWO (2) QUESTIONS. QUESTION ONE(1) IS COMPULSORY AND ONE MORE QUESTION

1. (a.) Discuss malaria parasite's life cycle under the following headings.
 - i. Pre-erythrocytic schizogony. (4 Marks)
 - ii. Erythrocytic schizogony. (4 Marks)
 - iii. Exo-erythrocytic Schizogony. (4 Marks)
 - iv Sporogony. (3 Marks)
- 2.(a.) With the aid of well labelled diagrams, describe the morphological forms of hemoflagellates. (12 Marks)
 - (b.) Compare and contrast East African sleeping sickness and West African sleeping sickness. (3 Marks)
- 3 a) Describe in details the lifecycle *Diphyllobothrium latum* (11 Marks)
 - b) Describe the differences between the rhabditiform and filariform larvae of hookworms and those of *Strongyloides stercoralis*. (4 Marks)