



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2026

UNIT CODE: PHT 124

UNIT NAME: Parasitology

DATE: 8th APRIL 2026

TIME: 2pm- 4pm

INSTRUCTIONS

- 1. All students will have two (2) hours to complete the examination**
- 2. This is an online exam, Attempt all questions as per the instruction**
- 3. It is the student's responsibility to report any page and number missing in this paper.**
- 4. Check that the paper is complete**
- 5. Total number of pages is 6 including the cover.**
- 6. Read through the paper quickly before you start.**

SECTION ONE-MULTIPLE CHOICE QUESTIONS (ATTEMPT ALL QUESTIONS)
(30MARKS)

1. In which year was the last case of sleeping sickness reported in Kenya
 - a. 2009
 - b. 2010
 - c. 2020
 - d. 2025
2. A host in which a parasite undergoes sexual reproduction and reaches maturity is called?
 - a. Intermediate host
 - b. Reservoir host
 - c. Definitive host
 - d. Accidental host
3. For *Plasmodium* species, the mosquito is the definitive host and humans are the intermediate host. Why are humans considered the intermediate host in this case?
 - a. The parasite's larval stages are found in humans
 - b. Asexual reproduction of the parasite occurs in humans
 - c. Sexual reproduction of the parasite occurs in humans
 - d. Humans are not affected by the parasite
4. Which term describes a symbiotic relationship where one organism benefits while the other is harmed?
 - a. Mutualism
 - b. Commensalism
 - c. Parasitism
 - d. Symbiosis
5. What is a key characteristic of an obligate parasite?
 - a. It can live independently or as a parasite.
 - b. It requires a host to complete its life cycle
 - c. It can only infect one species of host.
 - d. It only parasitizes other parasites
6. An organism that carries an infectious pathogen from one host to another is called a?
 - a. Vector
 - b. Commensal
 - c. Paratenic host
 - d. Reservoir host
7. The most common form of asexual reproduction in protozoa is called?
 - a. Binary fission
 - b. Multiple fission
 - c. Gametogenesis
 - d. Sporogony

8. Amoebic liver abscesses are the most common form of
 - a. Extra intestinal amoebiasis
 - b. Pulmonary amoebiasis
 - c. Cutaneous amoebiasis
 - d. All above
9. American Trypanosomiasis is transmitted by?
 - a. Triatomine bug
 - b. Horse fly
 - c. Tsetse fly
 - d. House fly
10. Which of the following parasite is transmitted to humans through exposure to cat feces?
 - a. *Plasmodium falciparum*
 - b. *Toxoplasma gondii*
 - c. *Entamoeba histolytica*
 - d. *Trichomonas vaginalis*
11. The primary mode of transmission of *Trichinella spiralis* is through?
 - a. Mosquito bite
 - b. Ingestion of undercooked pork or wild game meat
 - c. Drinking contaminated water
 - d. Person to person contact
12. Which of the following is a major public health measure to prevent trichinellosis?
 - a. Mass deworming programs
 - b. Proper cooking of pork and wild game meat
 - c. Vector control programs
 - d. Vaccination campaigns
13. The common name of *Trichuris trichiura* is:
 - a. Hookworm
 - b. Whipworm
 - c. Pin worm
 - d. Thread worm
14. The primary site of infection of *Trichuris trichiura* is
 - a. Small intestine
 - b. Large intestine
 - c. Liver
 - d. Skeletal muscles

15. Which diagnostic method is most commonly used for *Trichuris trichiura* infection?
- Blood smear
 - Stool microscopy for eggs
 - Muscle biopsy
 - Chest X-ray
16. Which unique feature distinguishes *Strongyloides stercoralis* from other intestinal nematodes?
- Autoinfection cycle
 - Presence of bipolar plugs in eggs
 - Encysted larvae in muscle
 - Transmission via undercooked meat
17. Hyperinfection with *Strongyloides stercoralis* is most likely to occur in:
- Healthy school aged children
 - Immunocompromised individuals
 - Travelers to urban cities
 - Elderly with good immunity
18. The diagnostic stage of *Strongyloides stercoralis* in stool is:
- Embryonated egg
 - Rhabditiform larva
 - Filariform larva
 - Adult worm
19. The main pathogenic effect of *Ancylostoma duodenale* infection is:
- Liver cirrhosis
 - Iron-deficiency anemia due to blood loss
 - Rectal prolapse
 - Jaundice
20. Community-level control of *Ancylostoma duodenale* includes
- Mass drug administration with albendazole or mebendazole
 - Vector control programs
 - Meat inspection
 - Blood transfusion screening
21. Supportive therapy in hookworm infection often includes:
- Vitamin C supplementation
 - Iron and nutritional support to correct anemia
 - Antimalarial drugs
 - Corticosteroids

22. Which feature distinguishes *Necator americanus* from *Ancylostoma duodenale*?
- Cutting plates in buccal capsule
 - Teeth in buccal capsule
 - Presence of bipolar plugs in eggs
 - Encysted larvae in muscle
23. During migration, *Necator americanus* larvae pass through which organ before reaching the intestine?
- Kidneys
 - Lungs
 - Liver
 - Spleen
24. Which environmental condition favors the development of *Necator americanus* larvae?
- Dry, arid soil
 - Warm, moist and sandy soil
 - Cold, frozen soil
 - Rocky terrain
25. The main pathogenic mechanism of malaria is due to:
- Larval migration through the lungs
 - Destruction of red blood cells during schizogony
 - Encysted larvae in the muscle tissue
 - Release of toxins from adult worms
26. Which complication is most associated with *Plasmodium falciparum* infection?
- Rectal prolapse
 - Cerebral malaria
 - Ground itch
 - Jaundice
27. The classical malaria paroxysm consists of:
- Fever, chills, sweating
 - Cough, diarrhea, rash
 - Muscle pain, edema, jaundice
 - Headache, vomiting, constipation
28. Which drug is used for radical cure of *Plasmodium vivax* and *Plasmodium ovale* infections (to eliminate hypnozoites)?
- Chloroquine
 - Primaquine
 - Artemether
 - Albendazole

29. Which of the following is true about *Entamoeba coli* cysts compared to *Entamoeba histolytica* cysts?
- E. coli* cysts have 4 nuclei, *E. histolytica* cysts have 8 nuclei
 - E. coli* cysts have up to 8 nuclei, *E. histolytica* cysts have up to 4 nuclei
 - Both have 8 nuclei
 - Both have 4 nuclei
30. Which amoeba trophozoite may contain ingested red blood cells (erythrophagocytosis)?
- Entamoeba coli*
 - Entamoeba histolytica*
 - Both
 - Neither

SECTION TWO ATTEMPT ALL QUESTIONS (20 MARKS)

31. Name the "gold standard" for diagnosing malaria, and the critical quality assurance (QA) step for this procedure? (2 marks)
32. Differentiate between an endoparasite and ectoparasite (2marks)
33. Elucidate why the elimination of sleeping sickness in Kenya is considered a major public health milestone (6marks)
34. Name the two malaria vaccines currently being tried in Kenya and outline the public health significance (6 marks)
35. Outline prevention and control measures for *Ascaris lumbricoides* (4marks)

SECTION THREE: ATTEMPT ANY TWO QUESTIONS (20 MARKS)

36. Discuss the public health significance of congenital toxoplasmosis evaluating the implications for maternal and child health, particularly in low- and middle-income countries (10 marks)
37. Describe the mechanisms by which *Entamoeba histolytica* causes amoebiasis (10 marks)
38. Analyze why schistosomiasis remains a significant public health concern in rice-growing regions of Kenya. Discussing the impact on affected communities, and evaluating current control and prevention strategies within the context of agricultural practices and rural health infrastructure (10 marks)