



AMREF INTERNATIONAL UNIVERSITY

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF REHABILITATIVE MEDICINE

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2024

UNIT CODE: PHT 124:

UNIT NAME: MEDICAL PARASITOLOGY

DATE: 16TH APRIL 2024

TIME: 11:15AM-1:15PM

INSTRUCTIONS

1. All students will have two (2) hours to complete the examination
2. 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. **DO NOT WRITE ON THE QUESTION PAPER**

Section I: MCQs (30 Marks)

Attempt ALL questions.

1. Definitive host is one _____
 - a) In which sexual multiplication takes place and harbours adult form.
 - b) In which asexual multiplication takes place and harbours adult form.
 - c) In which sexual multiplication takes place and harbours larval form.
 - d) In which asexual multiplication takes place and harbours adult form
2. The following is TRUE about giardiasis EXCEPT:
 - a) Fever and presence of blood and mucus in stool.
 - b) Acute and chronic diarrhea.
 - c) Duodenum and Jejunum are the prime sites of involvement.
 - d) Also known as traveler's diarrhea or beaver fever.
3. Winterbottom sign in sleeping sickness refers to _____
 - a) Unilateral conjunctivitis
 - b) Posterior cervical lymphadenitis
 - c) Narcolepsy
 - d) Transient erythema
4. The drug that can clear trypanosomes from blood and lymph nodes and is active in late nervous system stages of African sleeping sickness is _____
 - a) Emetine
 - b) Melarsoprol
 - c) Nifurtimox
 - d) Suramin
5. The motility of *Trichomonas vaginalis* is described as _____
 - a) Amoeboid
 - b) Jerky
 - c) Falling leaf
 - d) Lashing

6. The larval stage of the pork tapeworm is known as _____
- a) Cysticercus
 - b) Miracidium
 - c) Conurus
 - d) Metacercaria
7. The vector of *Trypanosoma cruzi* is _____
- a) Reduviid bug
 - b) Tsetse fly
 - c) Sand fly.
 - d) Hard tick
8. History of mild intestinal distress, sleeplessness, itching, and anxiety is seen in pre-school child attending play school, possible parasite agent causing these manifestations is _____
- a) *Trichomonas vaginalis*.
 - b) *Enterobius vermicularis*.
 - c) *Ascaris lumbricoides*.
 - d) *Necator americanus*.
9. The protozoan parasite causing leishmaniasis primarily infects which cells in the human body?
- a) Red blood cells
 - b) Liver cells
 - c) Skin cells
 - d) Macrophages
10. Which protozoan parasite causes African sleeping sickness?
- a) *Plasmodium falciparum*
 - b) *Trypanosoma cruzi*
 - c) *Trypanosoma brucei*
 - d) *Leishmania donovani*
11. Amoebic liver abscess can be diagnosed by demonstrating _____
- a) Cyst in the sterile pus.
 - b) Trophozoites in the pus.
 - c) Cyst in the intestine.
 - d) Trophozoites in the faeces.

12. All the following are obligate intracellular parasite EXCEPT:
- a) Plasmodium falciparum.
 - b) Trypanosoma cruzi.
 - c) Toxoplasma gondii.
 - d) Trypanosoma brucei gambiense
13. Which protozoan group is commonly known for causing waterborne diarrheal illnesses?
- a) Ciliates
 - b) Amoebas
 - c) Flagellates
 - d) Apicomplexans
14. A 6-year-old girl with a haemoglobin level of 6g/dL. Her face appears puffy with swollen eyelids and oedema over feet and ankles. There are no laboratory facilities available. The most likely cause of the child's condition is _____
- a) Schistosomiasis.
 - b) Cercarial dermatitis.
 - c) Ascariasis.
 - d) Hookworm disease.
15. Which of the following parasite passes its life cycle through three hosts?
- a) Fasciola hepatica.
 - b) Fasciola buski.
 - c) Schistosoma haematobium.
 - d) Clonorchis sinensis
16. Man is the intermediate host for _____
- a) Strongyloides stercoralis
 - b) Plasmodium vivax.
 - c) Entamoeba histolytica.
 - d) Enterobius vermicularis
17. Non-nuclear DNA present in addition to nucleus in protozoan parasite is _____
- a) Chromatid body.
 - b) Karyosome.
 - c) Kinetoplast.
 - d) Basal body

18. In humans, malarial parasites multiply by _____
- a) Binary fission.
 - b) Budding.
 - c) Gametogony.
 - d) Schizogony
19. The infective form of *Balantidium coli* is _____
- a) Tachyzoites
 - b) Cyst
 - c) Sporozoite
 - d) Trophozoite
20. A teenager who plays with dogs developed skin rash, eosinophilia, and an enlarged liver and spleen for 1 year. The most likely cause of this infection is _____
- a) Toxoplasmosis.
 - b) Trichinosis.
 - c) Visceral Larva Migrans.
 - d) Trichinosis.
21. Malaria is not seen in patients with _____
- a) G-6-PD deficiency
 - b) Sickle cell trait
 - c) Duffy negative blood group
 - d) All the above
22. Which helminth is responsible for causing hookworm infection?
- a) *Ascaris lumbricoides*
 - b) *Trichuris trichiura*
 - c) *Ancylostoma duodenale*
 - d) *Enterobius vermicularis*
23. Terminal spined eggs are seen in _____
- a) *Schistosoma haematobium*
 - b) *Schistosoma mansoni*
 - c) *Schistosoma japonicum*
 - d) *Clonorchis sinensis*

24. Autoinfection is a mode of transmission in _____
- a) *Trichinella spiralis*
 - b) *Enterobius vermicularis*
 - c) *Ancylostoma duodenale*
 - d) *Ascaris lumbricoides*
25. Larva found in muscle is of which parasite?
- a) *Trichinella spiralis*
 - b) *Ancylostoma duodenale*
 - c) *Trichuris trichiura*
 - d) *Enterobius vermicularis*
26. Which of the following is not a neuroparasite?
- a) *Taenia solium*
 - b) *Acanthamoeba*
 - c) *Naegleria fowleri*
 - d) *Trichinella spiralis*
27. The following statements regarding congenital toxoplasmosis are correct EXCEPT:
- a) Most severe form of congenital infection occurs if it is acquired in 1st trimester.
 - b) Chorioretinitis and hydrocephalus are common manifestations in congenital infections.
 - c) Presence of *Toxoplasma*-specific IgM antibodies in an infant are suggestive of congenital infection.
 - d) Most severe form of congenital infection occur if it is acquired in 3rd trimester *Coccidia*.
28. All the following parasites lead to bloody diarrhoea EXCEPT.
- a) *Schistosoma japonicum*
 - b) *Entamoeba histolytica*
 - c) *Schistosoma mansoni*
 - d) *Schistosoma haematobium*
29. Which of the following acts as the main reservoir of *Balantidium coli* infection.
- a) Man
 - b) Monkey
 - c) Pig
 - d) Cow

30. *Schistosoma mansoni* resides in _____

- a) Superior mesenteric vein
- b) Inferior mesenteric vein
- c) Small intestines
- d) Gall bladder

Section II: Short Answer questions (20 Marks)

Attempt ALL questions.

1. [4 Marks] Explain the process of encystment and excystment in protozoa.
2. [4 Marks] List FOUR preventive measures of Toxoplasmosis.
3. [4 Marks] Describe the clinical features of malaria infection.
4. [4 Marks] Differentiate between cestodes and trematodes.
5. [4 Marks] Explain how amoeba causes gastrointestinal symptoms in infected individuals.

Section III: (20 Marks)

Attempt any TWO (2) questions.

6. [10 Marks] Discuss the classification of protozoa based on their locomotion, providing examples for each group.
7. [10 Marks] Describe a generalized life cycle of trematodes.
8. [10 Marks] Discuss the preventive measures and control strategies for soil-transmitted helminthiasis.