



**TECHNICAL UNIVERSITY OF MOMBASA**

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FACULTY OF APPLIED AND HEALTH SCIENCES  
DEPARTMENT OF MEDICAL SCIENCES  
**UNIVERSITY EXAMINATION FOR:**  
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES  
BACHELOR OF SCIENCE IN COMMUNITY HEALTH

AML 4209 : MEDICAL HELMINTHOLOGY

END OF SEMESTER EXAMINATION

**SERIES:** APRIL 2016

**TIME:** 2 HOURS

**DATE:** Pick Date May 2016

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **TWO** Section(s). Attempt ALL questions.

**Circle the correct answer in section A.**

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PAPER 2

Section A

1. Pica may be seen in heavy infection with the following

- (a) Trichinella
- (b) Enterobius
- (c) Ascaris
- (d) Hookworms
- (e) Trichuris

2. Which one of the following is not a cutaneous larva migrans?

- a). *Toxocora cati*
- b). *Ancylostoma braziliense*
- c). *Ancylostoma caninum*
- d) *Uncinaria stenocephala*
- e) *Trichuris trichiura*

3. Very high eosinophilia is associated with which of the following

- a). Trichinosis
- b). Onchocerciasis
- c). Hydatid disease
- d). Ascariasis
- e) Enterobiasis

4. Which is the most common cause of Creeping Eruption or Cutaneous Larva Migrans.

- a). Trichinosis
- b). Onchocerciasis
- c). Hydatid disease
- d). Trichinella
- e) *Ancylostoma braziliense*

5. Which of the following parasite may produce Loeffler's syndrome to man

- a). *Trichuris trichiura*
- b). *D. latum*
- c). *Gnathostoma spinigerum*
- d). *Ascaris lumbricoides*

e) *Enterobius vermicularis*

6 . The adult worm of *Clonorchis sinensis* is most frequently found in the following

- a). Intrahepatic bile duct
- b). Lung parenchyma
- c). Urinary bladder submucosa
- d). Lumen of intestine
- e. Brain

7. The size of ova of *Trichuris trichiura* is approximately

- a). 70 x 30 um
- b). 60 x 40 um
- c). 50 x 22 um
- d) 60 x 38 um
- e) 160 x 80 um

8. Which one of the following is not a cestode

- a). *Diphyllobothrium*
- b). *Hymenolepsis*
- c). *Schistosoma*
- d). *Taenia*
- e) *Echinococcus*

9. *Diphyllobothrium latum* is associated with

- a). Cat
- b). Fish
- c). Pig
- d). Dog

e) Cow

10. Lateral uterine branches in gravid proglottid are counted for diagnosis of infection caused by the following

- a). *Diphyllobothrium latum*
- b). *Dipylidium caninum*
- c). *Taenia saginata*
- d). *Hymenolepis nana*
- e). *Taenia solium*

11. Bothriocephalus anemia is associated with

- a). microcytic hypochromic cells
- b). Folate deficiency
- c). iron deficiency anemia
- d). pernicious anemia
- e). Leukemia

12. The normal lifecycle of *Strongyloides stercoralis* is approximately

- a). 2 years
- b). 5 years
- c). 12 years
- d). 30 years
- e.) 15 years

13. Which of the following can infect the central nervous system?

- a). *Taenia solium*
- b). *Toxoplasma gondii*
- c). *Echinococcus sp*

d). *Taenia saginata*

e) *Ascaris*

14. The size of rhabditiform of *Strongyloides stercoralis* is approximately

a). 100 x 50 um

b). 250 x 20 um

c). 200 x 30 um

d). 300 x 25 um

e). 350 x 25 um

15. A dog that chases and eats wild rabbits is most likely to become infected with which cestode?

a. *Echinococcus granulosus*

b. *Taenia saginata*

c. *Diphyllobothrium latum*

d. *Dipylidium caninum*

e. *Taenia pisiformis*

16. Which one of the following is not a component of lugols iodine?

a). Potassium iodide

b). Ethyl alcohol

c). Iodine crystals

d). Water

e) Solvent

17. Eosinophils kills the parasite by the following

- a). Production of antibodies
- b). Intracellular digestion
- c). Extra cellular killing
- d). Activation of mononuclear cells
- e) Inflammation

18. Obstructive uropathy is associated with

- a). *Schistosoma haematobium*
- b). *Schistosoma japonicum*
- c). *Schistosoma mansoni*
- d). *Schistosoma mekongi*
- e) *Schistosoma intercalatum*

19. Pipe-stem fibrosis of the liver in Schistosomiasis is due to what stage of the parasite?

- a). Adult
- b). Juvenile
- c). eggs
- d). Cercaria
- e), Metacercaria

20. Which of the following has been associated with Schistosomes?

- a). Carcinoma of urinary bladder
- b). Carcinoma of liver
- c). Carcinoma of small intestine
- d). Carcinoma of lungs
- e) Carcinoma of Brain

21. Adult worms of the following are found in subcutaneous nodules

- a). *Loa loa*
- b). *Dracunculus medinensis*
- c). *Onchocerca volvulus*
- d). *Brugia malayi*
- e). *Wuchereria bancroft*

22. The eggs of the following Schistosoma sp are elongate and have a prominent terminal spine are

- a). *S. mansoni*
- b). *S. japonicum*
- c). *S. haematobium*
- d). *S. intercalatum*
- e) *S. Chaompala*

23. Snails are both the first and second intermediate hosts of the following trematodes

- a). *Echinostoma ilocanum*
- b). *Fasciola hepatica*
- c). *Paragonimus westermani*
- d). *Fasciola hepatica*
- e) *Clonorchis sinensis*

24. The infective stage of the following parasite is found in crabs or crayfishes.

- a). *Fasciola hepatica*
- b). *Echinostoma ilocanum*
- c). *Clonorchis sinensis*
- d). *Opisthorchis felineus*

e) *Paragonimus westermani*

25. Collection of blood specimen in the investigation of microfilaria depends on

- a). Time
- b). Locality
- c). Time and locality
- d). Species
- e) Parasite

26. What parasite has an egg that is plano-convex and is readily infective after discharge?

- a). *Toxocara canis*
- b). *Trichuris trichiura*
- c). *Ancylostoma duodenale*
- d). *Toxocara cati*
- e) *Enterobius vermicularis*

27. Which one of the following is diagnosed by muscle biopsy?

- a). *Trichinella spiralis*
- b). *Ascaris lumbricoides*
- c). *Strongyloides stercoralis*
- d). *Cryptosporidium parvum*
- e) *Schistosoma haematobium*



28. A host that harbours the asexual stage of a parasite is known

- a). Definitive host
- b). Intermediate host
- c). Reservoir host
- d). Facultative
- e) Obligate

29. Produces Ground itch to man.

- a). *Trichuris trichiura*
- b). *Necator americanus*
- c). *Enterobius vermicularis*
- d). *Ascaris lumbricoides*
- e) *Strongyloides stercoralis*

30. Which of the following drugs would be the best choice for the treatment of a *Schistosoma haematobium* infection in man?

- a. Albendazole
- b. Fenbendazole
- c. Eprinomectin
- d. Clorsulon
- e. Praziquantel

**Section B Answer all the questions 40 marks**

31a). Classify *Ancylostoma duodenale* (10 marks)

b). Describe the effect of *Shistosoma haematobium* in man? (10 marks)

32. a). Discuss *Diphyllobothrium latum*? (15 marks)

b) Describe in detail the Kato katz technique? (5 marks)