



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

BCHALOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

AML 4209 : **MEDICAL HELMINTHOLGY II**

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2019

TIME: 2 HOURS

DATE: 13 Aug 2019

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.

PAPER II

Section A (30 Marks)

1. Pipe stem fibrosis of the liver in Schistosomiasis is due to what stage of the parasite?
 - a). Adult
 - b). Egg
 - c).Cercaria
 - d). Metacercaria
 - e). Schistosomulum

2. Laboratory procedure that makes use of the egg in the test is
 - a). CFT
 - b).COPT
 - c). CHR
 - d). Casoni test
 - e).SEA

3. Dogs are the source of human infection by each of the following parasites except:

- (a). *Echinococcus granulosus*
- (b). *Taenia solium*
- (c). *Ascaris lumbricoides*
- (d). *Trichinella spiralis*

(e) *Entamoeba coli*

4. What parasite is associated with neoplasm of the biliary duct or cancer of the liver?

- a). *Clonorchis sinensis*
- b). *Opisthorchis felinus*
- c). *Fasciola hepatica*
- d). *Paragonimus westermani*
- e). *Taenia saginata*

5. What parasite produces infection that simulates tuberculosis?

- a). *Clonorchis sinensis*
- b). *Opisthorchis felinus*
- c). *Fasciola hepatica*
- d). *Paragonimus westermani*
- e). *Fasciola hepatica*

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

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

7. Lateral uterine branches in gravid proglottid are counted for diagnosis of infection cause by

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

8. Which one of the following is not a cestode

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

(e)*Dhylidium*

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

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

10. *Taenia saginata* is associated with

- a). cat
- b). dog
- c). cattle
- d). pig
- e). Camel

11. What stage of the Trematodes swims in the water?

- a). Cercariae
- b). Metacercariae
- c). Coracidium
- d). Sporocys
- e).Miracidia

12. The infective stage of what parasite is encysted in aquatic vegetations?

- a). *Clonorchis sinensis*
- b). *Echinostoma ilocanum*
- c). *Fasciolopsis buski*
- d). *Paragonimus westermani*
- e). *Schistosoma mansoni*

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

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

(e) *Enterobius*

14. Allergic manifestations in Schistosomiasis are due to what stage of the parasite?

- a). Adult
- b). Egg
- c). Cercaria
- d). Metacercaria
- e). Schistosomulum

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 lugol's iodine?

- a). Potassium iodide
- b). Ethyl alcohol
- c). Iodine crystals
- d). Water
- e). Ethanol

17. Eosinophils kill the parasite by

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

18. *Diphyllobothrium latum* is associated with

- a). cat
- b). fish
- c). dog
- d). pig
- e). Man

19. Produces autoinfection in man.

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

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 blood

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

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

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. mekongi*

23. What Cestodes does NOT need an intermediate host?

- a). *Dipylidium caninum*

- b). Hymenolepis diminuta
 - c). Echinococcus granulosus
 - d). Hymenolepis nana
 - e). Taenia Saginata
24. The most commonly involved organ in Hydatid Disease is the
- a)liver
 - b).Kidney
 - c).lungs
 - d brain
 - e). Blood

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

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

26. Produces autoinfection in man.

- a). Dipylidium caninum
- b). Taenia saginata
- c). Hymenolepis diminuta
- d). Taenia solium
- e). H. nana

27. Lateral uterine branches in gravid proglottid are counted for diagnosis of infection cause by

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

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

- a). Definitive host
- b). Intermediate host
- c). Reservoir host
- d). Zoonoses
- e. Obligatory

29. Ultrasound and MRI usually help in the diagnosis of the infection cause by

- a). *Dipylidium caninum*
- b). *Hymenolepis diminuta*
- c). *Echinococcus granulosus*
- d). *Hymenolepis nana*
- e). *D. latum*

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

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

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

31. Discuss the control of helminths (10mks)

32. Outline the control of *Fasciola hepatica* (10 marks)

33. a). Discuss *Fasciolopsis buski* (15 marks)

b) Describe in detail the Mac Master technique? (5 marks)