



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR:
DIPLOMA IN MEDICAL LABORATORY SCIENCE

AML 2302 : MEDICAL HELMINTHOLOGY 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 40 Marks

1. Snails serve as intermediate hosts of which of the following parasites?

- (a) *Enterobius vermicularis*
- (b) *Echinococcus granulosus*
- (c) *Schistosoma mansoni*
- (d) *Wuchereria bancrofti*

2. Humans can serve as the *intermediate* host of which of the following parasites?

- (a) *Taenia solium*

- (b) *Taenia saginata*
- (c) *Echinococcus multilocularis*
- (d) *Spirometra* spp.

3. Which of the following parasites are diagnosed by muscle biopsy?

- (a) *Ancylostoma duodenale*
- (b) *Trichuris trichiura*
- (c) *Trichinella spiralis*
- (d) *Strongyloides stercoralis*

4. The following statements concerning hookworm infection are correct except

- (a) Hookworm infection can cause pneumonia
- (b) Hookworm infection is acquired by active penetration
- (c) Diagnosed by finding the trophozoite in the stool
- (d) Hookworm infection is caused by *Necator americanus*

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

- (a) *Ascaris lumbricoides*
- (b) *Trichinella spiralis*
- (c) *Ascaris suum*
- (d) *Echinococcus granulosus*

6. Which of the following parasites are diagnosed by use of xenodiagnosis?

- (a) *Strongyloides stercoralis*

- (b) *Shistosoma mansoni*
- (c) *Trichinella spiralis*
- (d) *Ascaris lumbricoides*

7. One of the following parasites has more than two host to complete its lifecycle

- (a) *Ascaris lumbricoides*
- (b) *Enterobius vermicularis*
- (c) *Trichuris trichiura*
- (d) *Paragonimus westermani*

8. How is the intermediate flea host of *Dipylidium caninum* infected?

- (a). Hatched larvae penetrate through the adult flea exoskeleton
- (b.) Hatched larvae penetrate through the larval flea exoskeleton
- (c). Hatched larvae are engested by the adult flea
- (d). Eggs still within their gravid proglottids are engested by larval fleas

9. The following is the infective larval stage of blood trematodes

- a) Schistosomulum
- (b) Miracidia
- (c) Cercariae
- (d) Metacercariae

10. The following are advantages of using formalin in preparation of stool samples except

- (a) Easy to prepare
- (b) Good overall fixative

- (c) Long shelf life
- (d) Preserves trophozoites well

11. The following nematode is not acquired through ingestion of infective eggs

- (a) *Ascaris lumbricoides*
- (b) *Hookworm*
- (c) *Trichuris trichiura*
- (d) *Enterobius vermicularis*

12. The drug of choice in the treatment of *Ascaris lumbricoides* is

- (a) Metronidazole
- (b) Abendanzole
- (c) Piperazine
- (d) Chloroquine

13. The drug of choice for treatment against *Schistosoma* adults is?

- (a). Albendazole
- (b). Arecoline hydrobromide
- (c). Bunamidine hydrochloride
- (d). Praziquantel

14. The bilharia worm found in bladder mesenteries are.

- a) *Schistosoma* Bombay
- b) *Schistosoma magrebowai*
- c) *Schistosoma haematobium*
- d) *Schistosoma intercalatom*

15. Which of the following parasite species of Schistosomes lodges in the mesenteric veins of intestines and cause erosions of G.I.T

- (a) *Schistosoma metheei*
- (b) *Shistosoma japonicum*
- (c) *Schistosoma haematobium*
- (d) *Schistosoma bovis*

15 The pathological changes in Schistosomiasis are mainly caused by:

- (a). immature eggs.
- (b). Mature eggs.
- (c). Adult worm
- (d). Adult worm

17 Which parasite from the list below has been associated with the development of pernicious anemia?

- (a). *Diphyllobothrium latum*
- (b). *Echinococcus granulosus*
- (c). *Spirometra mansonioides*
- (d). *Schistosoma haematobium*
- (e). *Paragonimus westermani*

18 The region of growth in Cestodes is the

- (a). *Scolex*
- (b). *Neck*
- (c). *Strobila*
- (d). *Proglotid*

19 Which of the following requires two intermediate hosts to complete its life cycle?

- (a) *Taenia solium*
- (b) *Diphyllobothrium latum*
- (c) *Hymenolepis nana*

(d) *Taenia saginata*

20 The following are hepatic flukes except?

(a) *Fasciola hepatica*

(b) *Fasciola gigantica*

(c) *Metagonimus yokogawi*

(d) *Dicrocoelium dentriticum*

21. What is the method of choice for demonstrating Fasciolopsis infection?

(a). Ova and parasite exam of stool

(b). Ova and parasite exam of sputum

(c). Scotch tape preparation from perianal area

(d). Serological testing

22 The following worm belong to class Platyhelminth:

a) *Hymenolepis nana*

b) *Dipylidium caninum*

c) *Opisthorchis felinus*

d) *Trichuris trichiura*

23 Which one of the following is not a soil transmitted helminth?

(a) *Ascaris lumbricoides*

(b) *Hookworm*

(c) *Trichuris trichiura*

(d) *Enterobius vermicularis*

24 Which one of the following parasites are associated with B12 iron deficiency;

- a) Hookworms
- b) *Trichuris trichiura*
- c) *D. latum*
- d) *Trichinella spirali*

25 Which of the following is the fish tapeworm?

- (a) *Hymenolepis nana*
- (b) *Diphyllobothrium. latum*
- (c) *Hymenoleptis dimunita*
- (d) *Enchinocucus granulosis*

26. Sparganosis is defined as

- a) The larvae of pseudophyllidian cestode
- b) An embryophore
- c) An onchophene
- d) Plerocercoid larvae in living mammalian host

27. Worldwide, the most prevalent helminth to infecting humans is:

- (a) *Ascaris lumbricoides*
- (b) *Hookworm*
- (c) *Trichuris trichiura*
- (d) *Enterobius vermicularis*

28. Which of the following listed parasites is not an ectoparasite:

- a. Roundworm
- b. Cheyletiella mites
- c. Fleas
- d. Ticks

29. Which one of the following parasites causes rectal prolapse

- (a) *Ascaris lumbricoides*
- (b) *Trichuris trichiura*
- (c) *Enterobius vermicularis*
- (d) *Strongyloides stercoralis*

30. Which one of the following is the infective stage of lung trematodes?

- (a) Miracidia
- (b) Cercariae
- (c) Metacercariae
- (d) Schistosomulum

31. The single most important practice to reduce hospital associated infections is:

- a. Hand washing
- b. Isolation of infectious disease patients.
- c. Reverse flow hospital rooms
- d. Face masks

32. The most commonly acquired hospital-associated infections are in the:

- a. Urinary tract
- b. Surgical site
- c. Bloodstream
- d. Bladder

33. Which stage of helminth infection is usually infective for humans?

- a. First
- b. Second
- c. Third

d. Fourth

33. Identify which of the listed parasites is not an endoparasite:

- a. Lungworm
- b. Tapeworm
- c. Demodex mites
- d. Roundworm

34. The radiae stage of life cycle is associated with.

- a) Schistosoma mansoni
- b) Schistosoma japonicum
- c) Schistosoma intercalatum
- d) Schistosoma bovis

35. The snail host for Schistosoma japonicum is

- a) Bulinus globosus
- b) Onchocerca lania
- c) Lymnaea truncatula
- d) Biomphalaria feiffei

35. Spirometra monsoni is an example of

- a) Pseudophyllidium cestodes
- b) Hookworms
- c) Trichina worms
- d) Flukes

36. The characteristics for pseudophyllidae include

- a) Apolysis of a form of proglottids detachment
- b) Disintegration of segment for release of eggs
- c) One intermediate host
- d) They have 100 proglottides

37. Examples of urinary trematodes include

- a) Schistosoma haematobium
- b) Heterophyes heterophytes
- c) Clonordius sinensis
- d) Fasciolopsis bustei

38. The following cestodes scolex are armed

- a) Echinococcus granulosus
- b) Taenia confusa
- c) Taenia solium
- d) Taenia Asiatica

39. The condition cysticercosis bovis is associated with which of the following cestodes

- a) Hydrated worm

- b) *Taenia saginata*
 - c) *Taenia taenia formis*
 - d) *Echiacoccus vogeli*
40. The larval stage of *Diphyllobothrium latum* hatched from egg is
- a) Procercoide
 - b) Coracidium
 - c) Miracidium
 - d) Filanform

B Answer all the questions 60 marks

41.a) Discuss *Schistosomiasis* infection in man? (20 marks)

42). Outline the control strategies for prevention of *Echinococcus granulosus* infection (5 marks)

43. Describe the lifecycle of *Fasciola hepatica* (15 marks)

b). Outline the Kato Katz technique (5 marks)

c). Describe the pathogenesis and control of Taeniasis (15 marks)