



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

(KISUMU/MAIN CAMPUS)

**UNIVERSITY EXAMINATIONS (MAIN PAPER)
2017/2018 ACADEMIC YEAR**

THIRD YEAR SECOND TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF MEDICAL LABORATORY SCIENCES**

COURSE CODE: BML 321

COURSE TITLE: MEDICAL HELMINTHOLOGY

DATE: JULY 2018

TIME:

INSTRUCTIONS TO CANDIDATES

This paper is divided into three sections, **A B** and **C**, carrying respectively: Multiple Choice Questions (**MCQs**), Short Answer Questions (**SAQs**) and Long Answer Questions (**LAQs**). Answer all questions.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over

1. An adult helminth female that give birth to larvae only may be referred as?
 - A. Viviparous
 - B. Oviparous
 - C. Ovo-viviparous
 - D. Larvae production
2. The infective stage of pinworm is
 - A. Larva
 - B. Egg
 - C. Adult
 - D. Adolescent worm
3. The method most often used in diagnosis of ancylostomiasis is
 - A. Direct fecal smear
 - B. Saturated brine flotation method
 - C. Hatching-sedimentation method
 - D. Cellophane tape impression
4. Nutrition in platyhelminths is usually through?
 - A. A metabolically active tegument
 - B. A complex system of branched tubules
 - C. Mesenchymal cells
 - D. A bladder
5. The following trematodes are not hermaphroditic:
 - A. Liver flukes
 - B. Lung flukes
 - C. Blood flukes
 - D. Garrison flukes
6. The microfilariae of *Wuchereria bancrofti* and *Brugia malayi* can be differentiated by
 - A. Length, appearance and terminal nuclei
 - B. Length, body nuclei and cephalic space
 - C. Body nuclei, terminal nuclei and cephalic space
 - D. Terminal nuclei, cephalic space and length
7. The drug commonly used for filariasis is
 - A. Antimony potassium tartrate
 - B. Praziquantel
 - C. Hetrazan
 - D. Piperazine
8. The larval stage of *Echinococcus granulosus* is called?
 - A. Oncosphere
 - B. Hydatid cyst
 - C. Embryophore
 - D. Coracidium
9. The commonest cause of epilepsy and mental disorder in tapeworms is a stage called?
 - A. Hydatid cyst
 - B. *Cysticercus cellulosae*
 - C. Sparganum
 - D. Coenorous

10. The drug of the first choice for schistosomiasis is
 - A. Antimony potassium tartrate
 - B. Praziquantel
 - C. Hetrazan
 - D. Primaquine
11. This is a sheathed microfilaria:
 - A. *Onchocerca volvulus*
 - B. *Brugia malayi*
 - C. *Trichinella spiralis*
 - D. Cutaneous larva migrans
12. This tissue nematode causes “River-blindness”:
 - A. *Dracunculus medinensis*
 - B. *Wuchereria bancrofti*
 - C. *Onchocerca volvulus*
 - D. *Loa loa*
13. The following is the direct trematode life cycle:
 - A. Egg→Miracidium→Sporocyst→Redia→Cercariae→Metacercaria→Adult
 - B. Egg→Miracidium→Sporocyst→Mother Redia→Daughter Redia→Cercaria→Adult
 - C. Egg→Miracidium→Mother Sporocyst→Daughter Sporocyst→Cercaria→Adult
 - D. Egg→Miracidium→Mother Sporocyst→Daughter Sporocyst→Cercaria→Metacercaria
14. Which of these helminthes is also known as a “whip-worm”?
 - A. *Ascaris lumbricoides*
 - B. *Trichuris trichiura*
 - C. *Enterobius vermicularis*
 - D. *Strongyloides stercoralis*
15. Antihelminthic drugs are aimed at achieving the following process:
 - A. Increases the metabolic rates of the worm
 - B. Aids in parasite movement
 - C. Ensures the worms hold onto their hosts for feeding purposes
 - D. Acts locally in the intestine to kill the worms
16. The following is a skin penetrating nematode:
 - A. *Ascaris lumbricoides*
 - B. *Enterobius vermicularis*
 - C. *Wuchereria bancrofti*
 - D. *Strongyloides stercoralis*
17. Trematodes have:
 - A. A rudimentary reproductive systems
 - B. No excretory and nervous systems
 - C. A bifurcated esophagus that forms a blind caeca
 - D. A body cavity in which worm organs float
18. Man is the only known host of which of the following nematode?
 - A. *Enterobius vermicularis*
 - B. *Toxocara canii*
 - C. *Ancylostoma braziliense*
 - D. *Ancylostoma caninum*

19. Which of the following nematodes exhibits ovoviviparity
- A. *Trichinella spiralis*
 - B. Hookworm
 - C. *Enterobius vermicularis*
 - D. *Ascaris lumbricoides*
20. How is *Paragonimus westermani* spread to humans?
- A. Consumption of raw or undercooked pork
 - B. Fecal-oral route and close contact
 - C. Consumption of undercooked crabs
 - D. Fecal pollution of soil

SECTION B: Short Answer Questions (SAQs)

INSTRUCTIONS

- The section has four (5) questions, carrying a maximum of forty (40) marks
- Answer all of them

Q1. Explain the following terms as used to describe trematodes and cestodes.

- (a) Strobila
- (b) Cercaria
- (c) Embryophore
- (d) Miracidium

(8Marks)

Q2. With examples state the 4 types of helminth life cycles

(8Marks)

Q3. Explain how you would diagnose and treat *Enterobius vermicularis*

(8Marks)

Q4. Describe the general diagnosis of helminthes

(8 Marks)

Q5. State 8 general characteristics of Schistosomes.

(8Marks)

SECTION C: Long Answer Questions (LAQs)

- The section has two (2) questions, carrying a maximum total of forty (40) marks

- Answer all of them

Q1. Describe the life cycle of the digenetic Schistosome trematodes

(20Marks)

Q2. Discuss *S. stercoralis* life cycle including transmission, pathology, diagnosis and control.

(20 Marks)