



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DIPLOMA
IN
MEDICAL BIOTECHNOLOGY
DIRECT ENTRY

MAIN EXAM

COURSE CODE: BBD 224.

COURSE TITLE: MEDICAL PARASITOLOGY

DATE: 20/04/2022

TIME: 12.00 -2.00 PM

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**).

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: MULTIPLE CHOICE QUESTIONS (20MARKS)

Answer all questions

1. Which one of the following protozoan pathogens **DOES NOT** reside in the intestinal tract?
 - A. Trypanosoma species
 - B. Giardia lamblia
 - C. Entamoeba histolytica
 - D. Balantidium coli
2. All the following parasites are classified under flagellates **EXCEPT**?
 - A. Isospora belli
 - B. Trichomonas vaginalis
 - C. Trypanosoma species
 - D. Leishmania species
3. The non-pathogenic parasite that feeds on enteric bacteria and stains deeply with iodine is known as?
 - A. Chilomastix mesnели
 - B. Dientamoeba fragilis
 - C. Iodamoeba buetschii
 - D. Toxoplasma gondii
4. The hemoflagellate responsible for causing Kala-azar also known as black sickness is?
 - A. Phlebotomus sand fly
 - B. Leishmania donovani donovani
 - C. Leishmania tropica major
 - D. Leishmania aethiopica
5. Parasites responsible for causing cutaneous leishmaniasis can be found in the following locations **EXCEPT**?
 - A. In the skin surrounding the infected site
 - B. In endothelial cells of the capillaries of the infected site, ‘
 - C. In lymph nodes near the infected site,
 - D. Within large anucleate cells,
6. The amoebae whose infective stage is tetra nucleated cyst is known as?
 - A. Entamoeba histolytica
 - B. Entamoeba dispar
 - C. Entamoeba coli
 - D. Entamoeba hartmanni
7. Which flagellate has 4 anterior flagella and a posterior one comprising an undulating membrane is known as?
 - A. Retortamonas intestinalis
 - B. Trichomonas hominis
 - C. Trichomonas tenax
 - D. Trichomonas vaginalis
8. Which of the parasites below are ciliates?
 - A. Balantidium coli
 - B. Blastocystis hominis
 - C. Chilomastix mesnели
 - D. Enteromonashominis
9. Visceral larva migrans are as a result of invasion by?
 - A. Ascaris lumbricoides
 - B. Ascaris suum
 - C. Toxocara Canis
 - D. Toxocara catis
10. A nematode that is cylindrical, worm like both ends pointed, yellow or pink in colour is?
 - A. Ascaris lumbricoides
 - B. Necator americanus
 - C. Ancylostoma duodenale

- D. *Strongyloides stercoralis*
11. A patient from Ahero presents terminal hematuria and painful micturition, upon further examination the doctor establishes inflammation of the patient's bladder as well as hepatomegaly and splenomegaly. The most likely parasite to be recovered from their urine is?
 - A. *Schistosoma mansoni*
 - B. *Schistosoma haematobium*
 - C. *Schistosoma japonicum*
 - D. *Schistosoma intercalatum*
 12. The usual infective stage of Malaria to man is the
 - A. gametocytes
 - B. sporozoites
 - C. schizonts
 - D. merozoites
 13. The intestinal nematode which causes rectal prolapse in heavy infection especially among children is known as?
 - A. *Capillaria Philippinesis*
 - B. *Trichuris trichiura*
 - C. *Trichinella spiralis*
 - D. *Strongyloides stercoralis*
 14. The cestode whose larvae develops into a hydatid cyst is known as
 - A. *Hymenolepis diminuta*
 - B. *Echinococcus multilocularis*
 - C. *Taenia saginata*
 - D. *Echinococcus granulosus*
 15. A male patient visited a hospital with complains of epigastric pain, diarrhea, weight loss, hunger sensation and vomiting. The patient reported to have taken undercooked pork prior to manifestation of the symptoms. Which of the following parasites is most likely to be the causative agent of these symptoms?
 - A. *Taenia saginata*
 - B. *Diphyllobothrium latum*
 - C. *Taenia solium*
 - D. *Dracunculus medinensis*
 16. . What parasite/s may produce Loeffler's syndrome to man?
 - A. *Ascaris lumbricoides*
 - B. *Necator americanus*
 - C. *Enterobius vermicularis*
 - D. *Trichuris trichiura*
 17. The parasite associated with Nocturnal Pruritus ani is known as?
 - A. *Ascaris lumbricoides*
 - B. *Necator americanus*
 - C. *Enterobius vermicularis*
 - D. *Trichuris trichiura*
 18. The usual infective stage of Trematodes to man is the
 - A. Cercariae
 - B. Metacercaria
 - C. Egg
 - D. Miracidium
 19. Which 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*
 20. What parasite produces infection that simulates tuberculosis?
 - A. *Clonorchis sinensis*

- B. *Opisthorchis felinus*
- C. *Fasciola hepatica*
- D. *Paragonimus westermani*

SECTION B – SHORT ANSWER QUESTIONS – (40 marks)

Answer all questions

1. List down eight clinical features of *Giardia lamblia* **(8 marks)**
2. Define the following terms as used in medical parasitology
 - a) Ectoparasite **(1 mark)**
 - b) Facultative parasite **(1 mark)**
 - c) Intermediate host **(1 mark)**
 - d) Parasitism **(1 mark)**
3. Describe the pathogenesis of visceral leishmaniasis **(8 marks)**
4. Explain four effects of parasites on the host **(8 marks)**
5. With the aid of well labelled diagrams differentiate between the life cycle stages of *Entamoeba histolytica* and *Entamoeba coli* **(8 marks)**
6. List down four distinctive features of *Taenia solium* **(4 marks)**

SECTION C – LONG ANSWER QUESTIONS (60marks)

Answer all questions

1. Describe the life cycle pathogenesis and laboratory diagnosis of *E. histolytica* in details **(20 marks)**
2. Write an essay on Plasmodium species life cycle **(20 marks)**
3. Describe the morphology, infective stage, life cycle, pathogenesis, clinical features and treatment of *Ascaris lumbricoides* **(20 marks)**