

60



(University of Choice)
**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS MAIN EXAMINATION
2021/2022 ACADEMIC YEAR**

SECOND YEAR SECOND TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN NURSING**

COURSE CODE: NCN 215/ NMM226

COURSE TITLE: PARASITOLOGY

DATE: 21/04/2022

TIME: 8:00AM-11:00AM

INSTRUCTIONS TO CANDIDATES

This paper consists of three sections:

- i. Section A – Multiple Choice Questions
- ii. Section B – Short Answer Question
- iii. Section C – Long Answer Question.

Answer all questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

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



Section A: MCQ (Choose the most appropriate choice, only one choice is correct)

1. Which type of parasite is classified under sub-phylum mastigophora?
 - A. *Giardia lamblia*
 - B. *Balantidium coli*
 - C. *Entamoeba histolytica*
 - D. *Naegleria fowleri*
2. Which of the following is not a characteristics of parasites?
 - A. Prokaryotic
 - B. multicellular animals
 - C. with bilateral symmetry
 - D. spend most or all of their lives in host
3. The type of association of two different organisms, in which one partner is benefited while the other neither benefited nor injured is known as?
 - A. Mutualism
 - B. Commensalism
 - C. Parasitism
 - D. Symbiosis
4. The reproduction process in protozoans where, sexually differentiated cells unite permanently and a complete fusion of the nuclear material takes place is referred to:
 - A. Conjugation
 - B. Syngamy
 - C. Schizogony
 - D. Binary fission
5. Which type of parasite is classified under sub-phylum mastigophora?
 - A. *Giardia lamblia*
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8. Strict meat inspection can prevent transmission of?
 - A. *Taenia saginata*
 - B. *Hymenolepis nana*
 - C. *Onchocerca volvulu*
 - D. *Echinococcus granulosus*
9. A 4-year-old boy presents to his pediatrician with intense perianal itching. His mother explains that the child has also been extremely irritable during the day and has not been sleeping well at night. Eggs with a flattened side were identified by the

laboratory technician from a piece of scotch tape brought in by the parent. Infection with which of the following organisms is most likely?

- A. *Enterobius vermicularis*
- B. *Ascaris lumbricoides*
- C. *Echinococcus granulosus*
- D. *Entamoeba histolytica*

10. Each of the following parasites has an intermediate host as part of its life cycle EXCEPT?

- A. *Toxoplasma gondii*
- B. *Trichomonas vaginalis*
- C. *Taenia solium*
- D. *Echinococcus granulosus*

11. The following parasites are transmitted by mosquitoes except?

- A. *Ochrocerca volvulus*
- B. *Wuchereria bancrofti*
- C. *Plasmodium vivax*
- D. *Plasmodium falciparum*

12. Congenitally transmitted parasitic infection is

- A. *Pneumocystis carinii*
- B. *Toxoplasma gondii*
- C. Hyatid mole
- D. *Trichuris trichura*

13. The segmented parasites, with scolex, neck and proglottids belong to which class

- A. Trematode
- B. Cestoda
- C. Nematoda
- D. Round worms

14. Which of the following agent is used to prevent Malaria?

- A. Mebendazole
- B. Chloroquine
- C. Inactivated vaccine
- D. Zinc table

15. The following statements are correct regarding giardiasis EXCEPT:

- A. transmitted by ingestion of cyst
- B. affects mainly the lower small intestine
- C. diagnosed by examination of stool or duodenal contents
- D. most infections are asymptomatic

16. The following diseases are transmitted by arthropod vector EXCEPT:

- A. Malaria
- B. Babesia
- C. Yellow Fever
- D. Hyadatid cyst

17. Which of these insects transmits yellow fever?

- A. Mosquito
- B. Louse
- C. Flea
- D. Bed bug

18. Which of the following disease caused by a metazoan parasite (helminth)?

- A. Giardiasis
- B. Trichomoniasis

- C. Filariasis
 - D. Leishmaniasis
19. Which one of the arthropods belongs to class archinida?
- A. Mosquitoes
 - B. Ticks
 - C. Fleas
 - D. Bugs
20. Control that uses insects and disease causing agents to attack pest populations is called?
- A. cultural control
 - B. population control
 - C. biological control
 - D. Chemical control

SECTION B: SHORT ANSWER QUESTIONS: ANSWER ALL QUESTIONS (40 MARKS)

1. Define symbiosis and explain the three types of symbiosis (8 marks)
2. Explain two types of asexual reproduction and two types of sexual reproduction in protozoans
3. Explain the four stages that occur in the life cycle of *Plasmodium*
4. Define the following terms as used in parasitology
 - i. Host
 - ii. Direct and indirect life cycle
 - iii. Infective stage
 - iv. Parasite
5. Discuss the four routes of transmission of parasites

SECTION C: LONG ANSWER QUESTIONS: ANSWER ALL QUESTIONS (40 MARKS)

1. Schistosomes are major pathogens in humans discuss their lifecycle, Symptoms and complications, Laboratory Diagnosis and Prevention and control measure (20 marks)
2. a) Discuss the direct and indirect impact of parasite to the host (10 marks)
b) Explain the personal and diseases control measures of Leishmaniasis (10 marks)