



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**END OF SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE**  
**OF BACHELOR OF MEDICINE AND SURGERY [MBCHB]**  
**THIRD SEMESTER 2021/2022**  
**[JUNE-SEPTEMBER, 2022]**

**MEDS 222: MEDICAL MICROBIOLOGY I (PAPER 1)**

**STREAM: Y2S3**

**TIME: 3 HOURS**

**DAY: MONDAY, 9:00 -12:00 PM**

**DATE: 05/09/2022**

**INSTRUCTIONS**

***1. Do not write anything on this question paper.***



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THIRD SEMESTER 2021/2022  
[JUNE-SEPTEMBER, 2022]**

**MEDS 222: MEDICAL MICROBIOLOGY I (PRACTICAL EXAM: PAPER III)**

**STREAM: Y2S3**

**TIME: 3 HOURS**

**DAY: TUESDAY, 9:00 -12:00 PM**

**DATE: 13/09/2022**

**INSTRUCTIONS**

***2. Do not write anything on this question paper.***



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**END OF SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE**  
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**THIRD SEMESTER 2021/2022**  
**[JUNE-SEPTEMBER, 2022]**

**MEDS 222: MEDICAL MICROBIOLOGY I (PAPER 2)**

**STREAM: Y2S3**

**TIME: 3 HOURS**

**DAY: TUESDAY, 2:00 -5:00 PM**

**DATE: 06/09/2022**

**INSTRUCTIONS**

**3. Do not write anything on this question paper.**

**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS FOR THE AWARD OF DEGREE OF**  
**BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBCHB) END**  
**YEAR EXAMINATION 2021/2022 ACADEMIC YEAR**  
**UNIT: MEDS 222: MEDICAL MICROBIOLOGY I TIME: 3HOURS**  
**INSTRUCTIONS:**

1. Answer all questions in Section A and any THREE from Section B.
2. Do not write anything on this question paper

**SECTION A: ATTEMPT ALL QUESTIONS (60mks)**

1. Fungi have been found to be helpful to the existence of humans, however it is documented that they have some harmful impacts to human existence. Discuss (5mks)
2. Briefly describe the relevance of the fungal cell wall (2mks)
3. Describe Zygomycetes as a form of sexual fungal reproduction (3mks)
4. Explain factors that enhance fungal pathogenicity in humans (5 mks)
5. A patient visits the office where you are attached to and presents with the following clinical manifestations: has keloidal, verrucoid nodular lesions which appear to have spread into the dermis. The lesions appear to ulcerate on the face, arms, legs and ears. Preliminary examination reveals fungal infection.

- a. Describe briefly the diagnosis to be carried out to identify the etiological agent (3mks)
- b. Explain the management and treatment of this infection (2mks)
6. You notice a fungal infection on the head of a child with a Mother attending Mother-Child Health Clinic in a health facility. Explain to the mother briefly on management and treatment of Tinea capitis. (5mks)
7. Explain how a stool specimen is prepared and examined in the laboratory in parasitic infections.(5mks)
8. Describe the life cycle of *Leishmania* (5mks)

9. Using relevant examples, explain various four (4) modes of transmission of parasites (4mks)
10. With the aid of a well labeled diagram, give identification features of *Giardia lamblia* Flagellate (4 marks)
11. Give 5 differences between *Entamoeba histolytica* and *Entamoeba coli* (4 marks)
12. Explain why is malaria a public health problem in Western Kenya region (5 marks)
13. Describe the unique characteristics a tsetse fly in disease transmission (5 marks)
14. Explain the epidemiology of *Naegleria fowleri* (3 marks)

**SECTION B: ATTEMPT ANY THREE QUESTIONS (60mks)**

1. Discuss the etiological agent(s), clinical manifestations, diagnosis and treatment of systemic mycoses (20 marks)
2. A patient with Acquired Immuno-Deficiency Syndrome is experiencing opportunistic fungal infections, describe the possible aetiological agents and associated clinical manifestations (20mks)
3. Discuss the morphology of *Schistosoma mansoni* , its life cycle, pathogenesis and clinical symptoms associated with this parasite [20 marks]
4. Compare and Contrast the mechanism of antigenic variation in *Trypanosoma brucei* and *Giardia lamblia*. Discuss its invasion against immune response with the host during infection [20 marks]
5. a) Describe the biology and bionomics of cockroaches (10 marks)  
b) Discuss the integrated approach of controlling arthropod vectors (10 marks)