



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SUPPLEMENTARY/SPECIAL EXAMINATIONS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBCHB)
END OF YEAR SUPPLEMENTARY/SPECIAL EXAMINATION
[2021/2022 ACADEMIC YEAR]

MEDS 222: MEDICAL MICROBIOLOGY I

STREAM: Y2 S2

TIME: 2 HOURS

DAY: WEDNESDAY, 9:00 – 12: 00 P.M.

DATE: 27/04/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.**
- 2. Attempt ALL questions in section A, in section B, attempt any THREE questions.**

SECTION A: ATTEMPT ALL THE QUESTIONS

1. Briefly describe the importance of the fungi in our ecosystems (4marks)
2. With the help of examples describe how fungi can be classified in relation to nutrition (4marks)
3. Discuss how capsules have played a key role in fungal pathogenicity (3marks)
4. Athletes' feet have been found to be a common fungal condition in some households. Give a detailed account of this condition citing its causative agent. (4marks)
5. Describe chromoblastomycosis condition manifests itself clinically (3mks).
6. Briefly describe how *B. dermatitidis* can be diagnosed in a medical mycology laboratory. (4 marks)
7. Describe briefly how CNS cryptococcus presents itself. (3 marks)

8. Outline the unique characteristics of nematodes of medical importance (5 marks)
9. Explain why it is difficult to treat *Trichiuris* infection (2 marks)
10. Explain the life cycle of *Trichinella spiralis* (5 marks)
11. By giving 5 examples, explain how geographical factors can affect the distribution of parasites? (5 marks)
12. Explain 5 ways that a parasite can harm the host (5 marks)
13. Describe the pathology of urinary schistosomiasis (5 marks)
14. Distinguish between a salivarian and stercorarian trypanosome (2 marks)
15. Describe the life cycle of *Leishmania major* (3 marks)
16. Explain how you can diagnose *Toxoplasma gondii* infection (2 marks)
17. Which protozoan parasites is responsible for causing diarrhoea, mucus secretion and flatulence? (1 mark)

SECTION B: ATTEMPT ANY THREE QUESTIONS

1. Piedra is one of the most common fungal infections in some households that infects humans. Discuss it under the following subheadings
 - i. Causative agents (2 marks)
 - ii. Pathogenesis and clinical manifestation (10 marks)
 - iii. Its diagnosis (6 marks)
 - iv. Its management (2 marks)
2. a. With the help of illustrations describe the following forms of fungal sexual reproduction methods
 - i. Planogametic copulation (5 marks)
 - ii. Spermatization (5 marks)
 b. Briefly describe *Histoplasma capsulatum* under the following subheadings
 - i. Clinical manifestation (5 marks)
 - ii. Pathogenesis (5 marks)
3. Discuss *Anchylostoma duodenale* in relation to:
 - a) Life cycle (5 marks)
 - b) Epidemiology (5 marks)
 - c) Pathology (8 marks)
 - d) Prevention and control (2 marks)
4. Discuss *Plasmodium* in relation to its life cycle, epidemiology and pathogenesis (20 marks)