



# MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FOURTH YEAR SUPPLEMENTARY EXAMINATION FOR  
BACHELOR OF SCIENCE IN BIOLOGY

SZL405 UNIT NAME MEDICAL PROTOZOOLOGY

DATE: 14/3/2022

TIME : 2:00 – 4:00 PM

## INSTRUCTIONS

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

1. [Compulsory Question – 30 marks]
  - a) Outline the methods of asexual reproduction amongst Protozoa (3 marks)
  - b) Outline the various forms of Leishmaniasis (3 marks)
  - c) Distinguish between cilia and flagella as present in protozoa (3 marks)
  - d) Briefly explain any three routes of infection of humans by *Toxoplasma gondii* (3 marks)
  - e) Use a specific example to define commensalism (3 marks)
  - f) Outline three positive economic importance of protozoan parasites (3 marks)
  - g) Briefly outline the diagnosis and treatment of intestinal Coccidia (3 marks)
  - h) Briefly discuss any three management practices of intestinal protozoa (3 marks)
  - i) Explain any three parasites of the Central Nervous system (3 marks)
  - j) Illustrate the structure of *Trypanosoma brucei rhodesiense* (3 marks)
2. Section B (Attempt any two questions only (40 marks)  
Discuss the various protozoan parasites inhabiting the alimentary canal of man (20 marks)
3. Discuss the methods of reproduction of the malaria parasite. (20 marks)
4. a. Discuss the significance of feeding by the vector in the transmission of malaria.  
b. Discuss 'vectorial capacity' in the transmission of malaria to man.
5. a. Explain factors that promote drug resistance to *Plasmodium falciparum*. (8 marks)  
b. Explain the mechanisms of prevention of protistan infections to man from domestic anidae (12 marks)