

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE AND TECHNOLOGY

BMET 231: MEDICAL PROTOZOOLOGY

STREAMS: BSc. BMET

TIME: 2 HOURS

DAY/DATE: TUESDAY 18/4/2023

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

- i) Answer all the questions in Section A and any TWO questions in Section B
- ii) Do not write anything on the question paper.

SECTION A (30 marks) ANSWER ALL QUESTIONS

QUESTION ONE (COMPULSORY) 30 MARKS

- a) Explain any four ways by which pathogenic protozoa can spread from one infected person to another. (4 marks)
- b) Discuss the treatment and prophylaxis for cutaneous leishmaniasis. (3 marks)
- c) Explain four economic and zoonotic importance of protozoans. (4 marks)
- d) Differentiate between a definitive and a paratenic host. (2 marks)
- e) Explain the factors affecting the virulence effectivity of *Entamoeba histolytica*. (3 marks)
- f) Describe the pathogenesis of *Trichomoniasis vaginalis*. (5 marks)
- g) Explain any two types of parasites. (4 marks)
- h) Highlight the clinical features of Kala-Azar. (5 marks)

SECTION B (40 MARKS): ANSWER TWO QUESTIONS

QUESTION TWO (20 MARKS)

- a) Illustrate the life cycle, and pathogenesis of *Entamoeba histolytica* infection. (10 marks)
- b) Discuss the pathophysiology, laboratory diagnosis and treatment of East African Trypanosomiasis. (10 marks)

QUESTION THREE (20 MARKS)

- a) Discuss four ways through which protozoan parasites evade the host immune system. (4 marks)
- b) (i) Describe in detail how *Plasmodium falciparum* infection is associated with glycolytic pathway. (10 marks)
- (ii) Discuss the epidemiology and clinical features of *Plasmodium falciparum* infection. (6 marks)

QUESTION FOUR (20 MARKS)

- a) Describe the pathophysiology, life cycle and prophylaxis of *Giardia Lamblia* infection. (10 marks)
 - b) Discuss the life cycle and pathogenesis of *Naegleria fowleri*. (10 marks)
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