

BMET 231

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF BACHELOR OF SCIENCE IN BIOMEDICAL
SCIENCE AND TECHNOLOGY**

BMET 231: MEDICAL PROTOZOOLOGY

STREAMS: BSC. BIOMEDICAL SCI. & TECH

TIME: 2 HOURS

DAY/DATE: THURSDAY 9/04/2020

2.30 P.M – 4.30 P.M.

INSTRUCTIONS

- Answer Question **One** and any other **Two** questions

QUESTION ONE (COMPULSORY) [30 MARKS]

- a) Highlight 3 ways by which pathogenic protozoa can spread from one infected person to another. [3 Marks]
- b) Differentiate between trophozoite and cyst. [2 Marks]
- c) A 53 year old female presented with fever, rigors, malaise, and headaches for the past 2 days. She had lived in Migori for 8 months, where she had been hospitalized with similar complaints and treated empirically with chloroquine. She returned to Murang'a two days prior to admission. Her temperature was 102 degrees, Pulse 90, and BP 130/70. On physical examination, the spleen tip was palpable. The WBC count was 4100/mm³, and the hemoglobin was 8.5 g/dl.
 - (i) What test would help establish the diagnosis in this patient? [3 Marks]
 - (ii) What control measures are available to prevent transmission of this disease? [4 Marks]
- d) Briefly describe the pathogenesis of *Giardia lamblia* infection. [4 Marks]
- e) Briefly describe laboratory diagnosis of *Leishmania donovani*. [4 Marks]

f) Describe the pathogenesis of Trichomoniasis. [5 Marks]

g) Illustrate the life cycle of *Balantidium coli*. [5 Marks]

QUESTION TWO [20 MARKS]

a) Describe the life cycle and laboratory diagnosis of *Entamoeba histolytica*. [10 Marks]

b) (i) Name two causative agents of African trypanosomiasis. [2 Marks]

(ii) Discuss the clinical features of African trypanosomiasis. [8 Marks]

QUESTION THREE [20 MARKS]

a) Describe in detail, the life cycle of malaria parasite. [10 Marks]

b) Illustrate the life cycle and describe pathogenesis, and laboratory diagnosis of *Toxoplasma gondii* infection. [10 Marks]

QUESTION FOUR [20 MARKS]

a) Describe life cycle, pathogenicity, clinical features, diagnosis and treatment of *Cryptosporidium parvum* infection. [10 Marks]

b) Discuss the epidemiology and clinical features of *Plasmodium falciparum* infection. [10 Marks]

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