

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
BIOCHEMISTRY**

BIOC 332: BIOCHEMISTRY OF PARASITES

STREAMS:Y3S1

TIME: 2 HOURS

DAY/DATE: THURSDAY 06/12/2018

8.30 A.M – 10.30 A.M

INSTRUCTIONS

- i Answer Question One and any other Two Questions**
- ii Do not write on the question paper**

Question One (30 marks)

- a Elaborate the significance of parasite biochemistry in humans and animals life
(5marks)
- b With illustrations, discuss the microscopic diagnostic method of malaria infections in a clinical set up.
(5 marks)
- c State and explain the various forms of host-parasite relationship in parasite biochemistry. (5marks)
- d Describe the various forms of leishmania parasite of its life cycle (5marks).
- e Explain the pathogenesis of Entamoeba histolytica and the resulting disease.
(5marks)
- f With parasitic infection examples, differentiate between definitive and intermediate hosts (5marks)

Question 2 (20 marks)

- a. With illustrations, discuss the life cycle of *Plasmodium falciparum* (10marks)
- b. Discuss the ways via which immunity against malaria infections develops in endemic areas (6marks)
- c. List the common antimalarial drugs in market today (4 marks).

Question 3 (20 marks)

- a. Discuss the difference between visceral and cutaneous *Leishmaniasis* parasites (4 marks)
- b. Discuss the infection process by a *Leishmania* parasite (10marks)
- c. Using schistosoma parasite as a case example, describe the treatment and the associated health conditions.

Question 4 (20 marks)

- a Explain the various methods of immune evasion in *Plasmodium falciparum* (10marks)
 - b Describe the *African trypanosome* as a zoonotic parasite and the infections process. (10 marks).
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