



MACHAKOS UNIVERSITY

University Examinations for 2017/2018 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

Second Year Second Semester Examination for Degree in Bachelor of
Science in Population Health

CODE PPH 216 UNIT NAME ENVIRONMENTAL PARASITOLOGY

Date----- Time -----

Instructions

1. Answer Question 1 (**compulsory**) and **any other two** questions
2. Use clean well labelled diagrams wherever appropriate.

1. – Compulsory (30 marks)

- i. Explain why man not suffer from malaria even after being fed on by female anopheles mosquitoes (3 marks)
 - ii. Briefly explain how typanosomes evade the immune system of the human host (3 marks)
 - iii. Briefly discuss the transmission and management of *Ascaris lumbricoides* (3 marks)
 - iv. Briefly explain the exo-erythrocytic life cycle of the malaria parasite (3 marks)
 - v. Distinguish between the following:
 - a. *chemotherapy* and *chemoprophylaxis* (2 marks)
 - b. *Intermediate* and *paratenic* host (2 marks)
 - c. *Salivarian* and *stercorarian* disease transmission (2 marks)
 - vi. Outline three factors that could lead to failure of cure of a patient following chemotherapy against the malaria parasite (3 marks)
 - vii. Outline the adaptations to a parasitic mode of life of the endoparasitic liver fluke *Fasciola hepatica* (3 marks)
 - viii. Outline the responses of the parasite to the host after and during an infection (3 marks)
 - ix. Explain the concept “plaeomorphism” (3 marks)
- 2
- a. Explain the various modes of reproduction exhibited by *Plasmodium falciparum*. 10 marks
 - b. Explain why malaria still remains ranks highly as a human killer disease despite the advances in knowlegde on effective methods of its management 10 marks
- 3
- Discuss how you would manage infections by *schistosoma mansoni* in a primary school located at Mwea rice irrigation scheme 20 marks



- 4 Discuss the mechanisms of response of a human body following following infection by an endoparasite. 20 marks
- 5 a. Discuss the complications of chemotherapy against Human African Trypanosomiasis 10 marks
- b. Using specific examples, distinguish between direct and indirect transmission of diseases of medical importance 10 marks

