



# MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF EDUCATION (SCIENCE)

BACHELOR OF SCIENCE IN BIOLOGY

HEH 216: ENVIRONMENTAL PARASITOLOGY

DATE: 26/7/2019

TIME: 2.00-4.00 PM

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**INSTRUCTIONS: answer question one and any other two questions**

## QUESTION ONE

- a. Outline the various methods of the management of Malaria. 3 marks
- b. Explain the consequences of a poorly developed host – parasite relationship. 3 marks
- c. With specific examples, define the following terms as used in parasitology: 4 marks
  - i. Zoonotic disease
  - ii. Definitive host
  - iii. Predilection site
  - iv. Indirect life cycle of a parasite
- d. Explain why the liver of a vertebrate host provides an important habitat for infestation by parasites. 4 marks
- e. Briefly discuss three issues involved in the management of Human African Trypanosomiasis. 4 marks
- f. Outline the generalized live cycle of parasites belonging to the phylum Nematoda. 4 marks
- g. Differentiate between cyclical and mechanical transmission of trypanosomiasis 4 marks

- h. With respect to parasite, vectors, distribution and route of infection, characterize Chagas disease 4 marks

**SECTION B. ANSWER ONLY TWO QUESTIONS**

2. Using an annotated diagram, describe the lifecycle of a named malaria parasite. 20 marks
3. a. Discuss the various reactions of a host to parasite infection. 10 marks  
b. Describe the various effects of a parasite on its host 10 marks
4. Compare the life cycle of the Cestodes *Fasciola hepatica* and *Taenia saginata* 20 marks
5. a. Discuss the factors that control the genetic adaptability of parasites. 10 marks  
b. Trace the lifecycle of a named parasite with a migratory life cycle. 10 marks