



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE (ENVIRONMENTAL HEALTH)

HEH 216: PRINCIPLES OF ENVIRONMENTAL PARASITOLOGY

DATE: Monday, 28th November 2016

TIME: 8.00 a.m. - 10.00 a.m.

INSTRUCTIONS:

Question 1 is compulsory, maximum - 20 marks. Answer *Question 2 (compulsory)* and any other **two** Questions in Section B.

SECTION A: Answer ALL Questions

1. (a) Distinguish between these terms and give an example in each case.
 - (i) Infection and infestation (3 marks)
 - (ii) Facultative and obligatory parasites (3 marks)
- (b) Explain four measures that can be used to effectively control *Glossina*. (4 marks)
- (c) Name the vector in these diseases. (4 marks)
 - (i) Filariasis
 - (ii) River blindness
 - (iii) Loiasis
 - (iv) Leishmaniasis
- (d) Explain how a *Taenia solium* diagnosis can be established in an individual suspected to be infected. (4 marks)
- (e) Name the morphological forms of *Entamoeba histolytica*. (2 marks)

SECTION B: Answer Question 2 and any other two Questions

2. (a) Explain the indirect cycle of *Hymenolepsis nana*. (10 marks)
- (b) Explain five adaptations in helminthes which make them successful human parasites. (10 marks)
3. (a) Explain the following types of hosts, giving specific examples of each: reservoir, transport, intermediate and accidental hosts. (8 marks)
- (b) Describe the ways through which man gets a *Toxoplasma gondii* infection and name two domestic animals involved its transmission. (7 marks)
4. You have been posted as public health specialist to an area where the prevalence of intestinal nematode infections is high. Provide a detailed description of any **five** measures you would take to address the problem. (15 marks)
5. (a) Explain five causes of drug resistance in *Plasmodium malariae*. (10 marks)
- (b) Describe the mechanisms through which endoparasites cause disease in human hosts. (5 marks)