

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE IN BIOCHEMISTRY AND BACHELOR OF SCIENCE IN
BIOMEDICAL**

BMED 235: HELMINOLOGY

STREAMS: BSC (BIOCHEM, BMED)

TIME: 2 HOURS

DAY/DATE: THURSDAY 04/08/2016

11.30 AM – 1.30 PM

INSTRUCTIONS:

Answer Question One and any other Two Questions

QUESTION ONE (30 MARKS)

- (a) Define the following terms in relation to parasitic infection. [5 marks]
- (i) Self-cure phenomenon
 - (ii) Onchocercoma
 - (iii) Elephantiasis
 - (iv) Zoonosis
 - (v) Autoinfection
- (b) Explain the classifications of host according to the role they play in the parasitic life cycle. [5 marks]
- (c) Outline the classifications of helminthes. [3 marks]
- (d) Distinguish the classes of cestodes. [5 marks]
- (e) A patient presents with abdominal pain, diarrhea, oedema, intestinal inflammation with formation of ascites.
- (i) What is the causative agent of the disease? [1 mark]
 - (ii) How would you diagnose the disease? [1 mark]

- (iii) Explain the prophylaxis of the disease. [5 marks]
- (iv) Outline the mechanisms used by hookworms to evade destruction by the host immune system. [5 marks]
- (f) State the infective stage, definitive host, intermediate host and predilection site of *E.granulosus*. [2 marks]

QUESTION TWO (20 MARKS)

- (a) Explain the life cycle of Fasciola hepatica under the following sub titles:
 - (i) Life cycle [10 marks]
 - (ii) Pathogenicity [4 marks]
 - (iii) Diagnosis and treatment [3 marks]
 - (iv) Control [3 marks]

QUESTION THREE (20 MARKS)

- (a) Explain the types of host-parasite symbiotic relationship. [6 marks]
- (b) Describe the pathogenic effects of Trichnella spirallis. [3 marks]
- (c) Discuss the host defense mechanism against the invading parasite. [10 marks]
- (d) Name the infective stages of Trichuris trichiura. [1 mark]

QUESTION FOUR (20 MARKS)

- (a) Differentiate T.sanata and T.Solium in terms of the morphology. [4 marks]
 - (b) Discuss the pathology of human strongloides. [6 marks]
 - (c) Differentiate between A.lumbricoides and toxocara worm using appropriate diagrams. [5 marks]
 - (d) Explain the mode of the infection of nematodes. [5 marks]
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