



MACHAKOS UNIVERSITY

University Examinations 2019/2020 academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FOURTH YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN BIOLOGY

SZL 406: MEDICAL HELMINTHOLOGY

DATE: 22/1/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS

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

SECTION A

QUESTION ONE (30 MARKS) (COMPULSORY)

- a) Explain the predisposing factors to infection by *Echinococcus granulosus* in man (3 marks)
- b) Explain any three methods of prevention of infection by *Trichinella spiralis* (3 marks)
- c) Outline the methods of infection to man by *Tichuris trichura* (3 marks)
- d) Explain the epidemiology of schistosomiasis in Kenya (3 marks)
- e) Briefly describe sexual reproduction in *Schistosoma mansoni* (3 marks)
- f) Explain the adaptations of trematodes to a parasitic mode of life (3 marks)
- g) Illustrate the structure of a mature proglottid of a tape worm (3 marks)
- h) Explain the pathogenicity of the following disease conditions in Kenya:
 - i. Schistosomiasis (3 marks)
 - ii. Hydatidosis (3 marks)
- i) Briefly discuss the modes of reproduction in tape worms (3 marks)

SECTION B

QUESTION TWO (20 MARKS)

- a) Outline the general life cycle of nematodes (8 marks)
- b) Trace the migratory life cycle of a named nematode (12 marks)

QUESTION THREE (20 MARKS)

Discuss the lifecycle of *Fasciola hepatica*

QUESTION FOUR (20 MARKS)

Using appropriate examples and their economic importance, classify the phylum Platyhelminthes

QUESTION FIVE (20 MARKS)

Compare the management approaches to Filariasis and Schistosomiasis in Kenya