



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FOURTH YEAR SUPPLEMENTARY/SPECIAL EXAMINATION FOR

BACHELOR OF SCIENCE IN BIOLOGY

SZL406 : MEDICAL HELMINTHOLOGY

DATE:

TIME :

Instructions

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

SECTION A

1. – Compulsory (30 marks)

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

SECTION B

- 2 Compare the management approaches to Filariasis and Schistosomiasis in Kenya (20 marks)
- 3 Using appropriate examples, classify the phylum Platyhelminthes (20 marks)
- 4 a. Outline the general life cycle of nematodes (8 marks)
b. Trace the migratory life cycle of a named nematode (12 marks)
- 5 Discuss the lifecycle of *Fasciola hepatica* (20 marks)

