WI-2-60-1-6

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS 2025/2026
TPE 3101: MEDICAL HELMINTHOLOGY (2026/2027)

MAIN EXAMINATION

DATE: AUGUST 2026 **TIME: 3 HOURS**

INSTRUCTIONS: ANSWER ANY FOUR OUT OF THE SIX QUESTIONS

1. (a) Describe the basic characteristics of the three major groups of helminth parasites (15 marks).
(b) Describe environmental factors that influence the distribution and transmission of helminth infections (10 marks).

2. (a) Discuss the epidemiology of *Taenia saginata*, with reference to its transmission, distribution, risk factors, and control measures (15 marks).
(b) Describe the main body parts of an adult tapeworm and their functions (10 marks).

3. (a) Describe the principles of the Kato-Katz and urine filtration techniques used in the parasitological diagnosis of schistosomiasis (15 marks).
(b) Discuss the role of Water, Sanitation and Hygiene (WASH) in the control of schistosomiasis (10 marks).

4. (a) Describe the role of reservoir hosts and water-resource development projects in the spread of schistosomiasis (15 marks).
b) Discuss pathogenesis and clinical manifestation of intestinal schistosomiasis (10 marks).

5. Describe the causative agent, life cycle, pathology, and control strategies of onchocerciasis (river blindness) (25 marks).

6. (a) Describe the relationship between the habitat occupied by a helminth within the host and its physiology (10 marks).
(b) Compare the metabolic adaptations of larval, blood-dwelling, and lumen-dwelling helminths with respect to oxygen availability, nutrient utilization, and energy production (15 marks).