

THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF ZOOLOGY
BSc DEGREE PROGRAMME
FINAL EXAMINATION 2023 / 2024
COURSE TITLE: PARASITOLOGY
COURSE CODE: ZYU5304
DURATION: TWO HOURS



DATE: 08 October 2023

TIME: 1.30 pm – 3.30 pm

ANSWER ANY FOUR (4) QUESTIONS.
ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. Write an account on the following.
 - i) Sporogonic cycle of *Plasmodium*. [50 marks]
 - ii) Prevention and control of leishmaniasis. [50 marks]

2. Outline the pathogenesis and clinical symptoms associated with the following nematode infections in human.
 - i) Ascariasis. [50 marks]
 - ii) Hookworm disease. [50 marks]

3. Justify the following statements using suitable examples.
 - i) Parasites often have attachment devices. [40 marks]
 - ii) Many parasites show behavioural adaptations for active host location. [40 marks]
 - iii) Protozoan and helminth parasites have immune evasion strategies. [20 marks]

4. Tabulate the major morphological and life cycle differences between the pseudophyllidean and cyclophyllidean cestode parasites by considering *Diphyllobothrium latum* and *Taenia solium* as examples. [100 marks]

5. A farmer working in an irrigation scheme in Nigeria was diagnosed with a parasitic infection on microscopic examination of a urine sample. Embryonated, large (140µm x 60µm) elongated eggs with a terminal spine that were yellowish brown in colour, were clearly visible in the urine sample.
- i) Diagnose the parasitic disease affecting the farmer and name the species that causes the infection. [08 marks]
 - ii) Outline the factors that would have facilitated transmission of this infection to the farmer. [24 marks]
 - iii) Propose your recommendations to control the infection amongst this farming community in future. [68 marks]
6. Write notes on two (02) of the following.
- a) Harmful effects of parasites on their hosts. [50 marks]
 - b) Laboratory diagnosis of *Wuchereria bancrofti* infection in human. [50 marks]
 - c) Development of *Clonorchis sinensis* in intermediate hosts. [50 marks]
