

THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF ZOOLOGY
BSc DEGREE PROGRAMME
FINAL EXAMINATION 2025 / 2026
COURSE TITLE: PARASITOLOGY
COURSE CODE: ZYU5304
DURATION: TWO HOURS



DATE: 28 November 2025

TIME: 2.00 pm – 4.00 pm

ANSWER ANY FOUR (4) QUESTIONS.

ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. i) Describe the development of *Plasmodium* in the mosquito vector. [50 marks]
ii) Outline the laboratory techniques used for diagnosing malaria infection in humans. [50 marks]
2. Compare Cysticercosis and Hydatidosis diseases that affect humans. Your answer should identify the causative agent for each disease, major features of the life cycle, transmission, symptoms and pathological characteristics of the diseases. [100 marks]
3. i) Describe the various routes through which *Toxoplasma gondii* is transmitted to humans. [70 marks]
ii) Outline the preventive measures aimed at reducing the risk of *T. gondii* infection in humans through exposure to cat faeces. [30 marks]
4. Explain the diverse mechanisms parasites have evolved to overcome the following challenges.
 - i) Parasites face dual challenges within hosts: resisting digestive attacks and evading the immune system. [30 marks]
 - ii) Flatworms must overcome problems of transfer from one host to another. [40 marks]
 - iii) Gut parasites require devices to attach to the host's intestinal tissues. [30 marks]

5. Anula, a 25-year-old woman from Sri Lanka, had been experiencing genital itching, a burning sensation, and a yellowish vaginal discharge for several weeks. A fresh vaginal swab obtained was examined microscopically using a wet mount preparation. The examination revealed motile trophozoites exhibiting characteristic jerky movements, each measuring approximately 10–20 μm in length. These findings were indicative of a parasite infection.
- i) What is the most likely diagnosis of the disease, and which parasite species is responsible for the observed symptoms? [10 marks]
 - ii) Describe how this infection is transmitted from one individual to another. [10 marks]
 - iii) Outline the clinical symptoms observed in males infected with this parasite. [20 marks]
 - iv) Discuss the preventive measures that can be implemented to reduce transmission and prevent reinfection. [20 marks]
 - v) Compare the trophozoite morphology of this parasite with that of *Giardia lamblia*. [40 marks]
6. Write notes on two (02) of the following.
- a) Laboratory diagnosis of *Wuchereria bancrofti* in humans. [50 marks]
 - b) Pathology and symptoms of hookworm disease. [50 marks]
 - c) Prevention and control of enterobiasis. [50 marks]
