

THE OPEN UNIVERSITY OF SRI LANKA
DEPARTMENT OF ZOOLOGY
BSc DEGREE PROGRAMME
FINAL EXAMINATION 2024 / 2025
COURSE TITLE: PARASITOLOGY
COURSE CODE: ZYU5304
DURATION: TWO HOURS



DATE: 22 November 2024

TIME: 2.00 pm – 4.00 pm

ANSWER ANY FOUR (4) QUESTIONS.

ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1.
 - i) What is a symbiotic association? [20 marks]
 - ii) What are the different categories of symbionts and symbiotic associations? Explain their features, giving examples. [80 marks]

2. A 30 year-old woman was admitted to hospital complaining of burning during urination and a whitish vaginal discharge associated with itching. The doctor ordered a urinalysis and a vaginal swab for microscopic examination. Microscopy revealed motile trophozoites measuring approximately 12 μ m in diameter in both the urine microscopic wet mount and the vaginal wet-mount preparation.
 - i) What is your diagnosis of the disease and the parasite species causing the symptoms? [10 marks]
 - ii) How is this infection transmitted from one person to another? [10 marks]
 - iii) What symptoms are seen in men infected with this parasite? [20 marks]
 - iv) What should be done to avoid transmission and reinfection? [20 marks]
 - v) Compare the morphology of this parasite with that of *Giardia lamblia* trophozoite. [40 marks]

3. Write on the following.
 - i) Development of *Clonorchis sinensis* in intermediate hosts. [50 marks]
 - ii) Prevention and control of leishmaniasis. [50 marks]

4. Digeneans and cestodes have adaptations to live as successful parasites. Justify this statement citing relevant examples. [100 marks]
5. An infection of *Enterobius vermicularis* is spreading among children living in an orphanage.
 - i) Illustrate the life cycle of this parasite using a detailed line diagram. [25 marks]
 - ii) What are the disease symptoms and pathologies associated with enterobiasis? [25 marks]
 - iii) Explain the measures that could be taken to control the spread of enterobiasis. [50 marks]
6. Write notes on two (02) of the following.
 - a) Sporogonic cycle of *Plasmodium*. [50 marks]
 - b) Transmission of *Taenia solium* infections to humans. [50 marks]
 - c) Pathology and symptoms of hookworm disease. [50 marks]
