

THE OPEN UNIVERSITY OF SRI LANKA  
DEPARTMENT OF ZOOLOGY  
B.Sc. /B.Ed. DEGREE PROGRAMME  
FINAL EXAMINATION 2016 / 2017  
COURSE TITLE: PARASITOLOGY  
COURSE CODE: ZLU3184  
DURATION: TWO HOURS



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DATE: 12<sup>th</sup> August 2017

TIME: 1.00 pm – 3.00 pm

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ANSWER ANY **FOUR** (4) QUESTIONS.

ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. i) Propose an effective programme for the control of human African trypanosomiasis in a village community of Africa.  
ii) Write briefly on the sleeping sickness stage of African trypanosomiasis.
  
2. Name a facultative nematode parasite of human and describe the different pathways of its life cycle.
  
3. A laboratory received a fresh stool sample of a 10-year old child who had been eating regularly from the school canteen. The stool sample was watery, with blood and mucus. Wet mounts and trichrome stained preparations of the watery stool showed stages measuring 15-20  $\mu\text{m}$  with ingested red blood cells, and having a single nucleus with a centrally placed karyosome and uniformly distributed peripheral chromatin.
  - i) What is your diagnosis of the disease and the parasite species causing the infection?
  - ii) Illustrate the life cycle of this parasite using a detailed line diagram.
  - iii) Outline how an infection of this parasite is transmitted.
  - iv) What advice on preventive measures will you give the parents to avoid re-infection?
  
4. List of the distinctive features that differentiate the life cycles of the following.
  - i) Pork tapeworm and broad fish tapeworm.
  - ii) Blood fluke and lung fluke.

*Continued...*

5. Justify the following statements.

- i) *Plasmodium* exhibits many adaptations for parasitism
- ii) Adult tapeworms are well suited for their life in the vertebrate intestine.
- iii) Periodic behaviour of microfilariae facilitates transmission of *Wuchereria bancrofti*.

6. Write notes on two (02) of the following.

- a) Tick infestations.
- b) Tungiasis.
- c) Scabies.

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