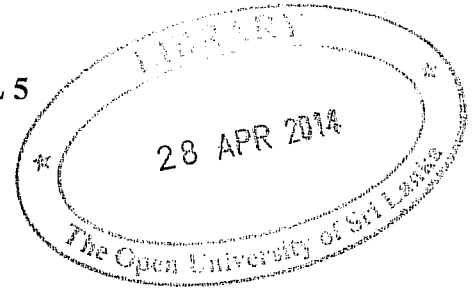


THE OPEN UNIVERSITY OF SRI LANKA  
B.Sc./B.Ed. DEGREE PROGRAMME 2013/ 2014 – LEVEL 5  
PARASITOLOGY - ZLU3184 / ZLE5184  
NO BOOK TEST 2  
DATE: 6<sup>th</sup> APRIL 2014  
TIME: 4.15 PM – 5.15 PM



REGISTRATION NO. ....

**PART B** (40 marks)

Write answers within the space provided.

2.0 Soil transmitted helminths (STH) are nematodes that transmit to human through soil contaminated with eggs or larvae. Read the following passage and answer the questions.

Given below is a summary of the findings of a national survey recently conducted on the prevalence of STH infections among school children in Sri Lanka.

- In Uva, Sabaragamuwa and Central Provinces, where tea and rubber plantations were predominant, the overall prevalence of STH infections ranged from 20% to 50%.
- In all other Provinces of the island, the overall prevalence of STH infections ranged from 10% to <20%.
- Prevalence of STH infections among the tea estate sector school children in Nuwara Eliya was found to be 38.2%.

Taking the findings of the survey into consideration, the Ministry of Health issued a circular letter on 'Guidelines on de-worming children in community settings 2013 – 2016'. For the implementation of the de-worming programme for STH in Sri Lanka, Uva, Sabaragamuwa and Central Provinces are considered high risk areas and all other provinces as moderate risk areas.

2.1 List three (03) species of soil transmitted helminths. [3 marks]

2.2 Is person-to-person transmission likely in soil transmitted helminths? Explain your answer. [3 marks]

Contd.

2.3 Briefly explain three (03) possible reasons for the higher prevalence of STH infections in high risk areas of the island. [9 marks]

2.4 In addition to treatment with de-worming medicine, describe three (03) other measures you will recommend to the STH prevention and control campaign, especially to reduce the risk among the estate sector school children in Nuwara Eliya.

[12 marks]

Contd.

2.5 A 25-year-old worker from one of the estates in Nuwara Eliya vomited a creamy white worm that measured 30cm in length. The worm together with a faecal sample was sent to a laboratory for identification. The eggs detected in the faeces were round in shape, contained an uneven albuminous layer on outer surface and measured 44  $\mu\text{m}$  long on average. [6 marks]

a) What is your diagnosis?

b) Write two (02) adaptations of the adult worm of this parasite to counteract digestive processes of the host.

2.6 A stool specimen collected from a 10-year-old child living in the same estate in Nuwara Eliya was sent for laboratory testing. The eggs shown in the Figure X below, measuring 50 x 22  $\mu\text{m}$  long on average were observed in high numbers. [7 marks]

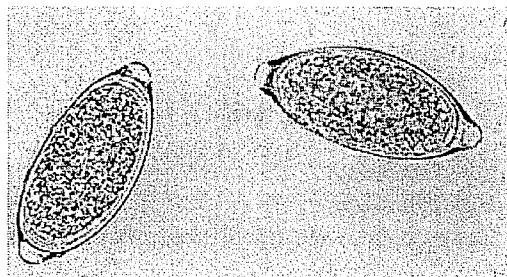


Figure X

a) What is your diagnosis? On what criteria did you base the answer?

b) List three (03) symptoms of the disease caused by this worm.

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