



Faculty of Medicine
Examination
17 AUG 2026
University of Ruhuna

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Illustrate your answers with labelled diagrams wherever necessary
Use only the space provided for answering

- 1.1. State the most likely causative parasite. (05 marks)**

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1. The first step in the process of identifying a problem is to recognize that a problem exists. This involves gathering information about the situation and identifying the specific issue that needs to be addressed.

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UNIVERSITY OF RUHUNA
FACULTY OF MEDICINE
Third Examination for Medical Degrees (Part I)
17th August 2026
PARASITOLOGY – Paper II
1.00 p.m. to 3.00 p.m. (2 hours)



Index number

M	D	2	0						
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1.4. List the two (2) main pathophysiological sequelae that have taken place in this patient. (05 marks)

1.
2.

1.5. List three (3) organs where stagnation of infected red blood cells has taken place in this patient.(15 marks)

1.
2.
3.

1.6. State the main protein on the cell membrane of parasitised red blood cells. (05 marks)

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1.7. Mention the responsible endothelial receptor that binds to the infected red blood cell protein in each organ mentioned in 1.5. (15 marks)

1.
2.
3.



M	D	2	0						
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Parasite	
Vector	
Host	



Q2

UNIVERSITY OF RUHUNA
FACULTY OF MEDICINE
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

Answer all questions.

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2. The Department of Parasitology has conducted a community survey covering a village in Galle District to identify the transmission of parasitic diseases. You are a demonstrator in the department and participated in this survey. The key outcomes of the survey are as follows:

- Outcome 1: Evidence of lymphatic filariasis warranting mass drug administration (MDA).
- Outcome 2: Several individuals affected by chronic lymphoedema.
- Outcome 3: Several households with members having pruritic papules and burrows, mainly over the finger web spaces and wrists.

Based on outcome 1, recommendations were made to the Anti-Filariasis Campaign, which subsequently conducted mass drug administration in the community. Five days after receiving MDA, a 30-year-old man presented to the Filariasis Clinic of the Department of Parasitology with pain and redness in the right groin and a tender, cord-like swelling extending along the medial aspect of the thigh. He had no fever or ankle oedema. Examination revealed tender inguinal lymphadenopathy.

2.1. Which indices generated by the survey would have indicated the need for mass drug administration (MDA) in this community? (5 marks)

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2.2. State the drug regimen used for MDA in Sri Lanka for adults and children. (10 marks)

Adults	
Children	

2.3. List four (4) categories of individuals that should be exempted when distributing drugs for MDA. (10 marks)

1.	
2.	
3.	
4.	



M	D	2	0						
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(10 marks)

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(15 marks)

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2.6. Regarding the outcome 2 of the survey:
You are requested to advise the patients with chronic lymphedema identified during the survey on limb care. List the steps of limb care and practices that should be avoided. **(15 marks)**

(15 marks)

[illegible]



UNIVERSITY OF RUHUNA
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

Practices to be avoided

2.7. Regarding the outcome 3 of the survey:

What is the most likely causative parasite in individuals with this skin condition?

(05 marks)

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2.8. Briefly explain why several members of each household are affected by the parasite mentioned in 2.7.

(10 marks)

2.9. State two (2) methods by which you can confirm your diagnosis for the parasite mentioned in 2.7.

(05 marks)



UNIVERSITY OF RUHUNA
FACULTY OF MEDICINE
Third Examination for Medical Degrees (Part I)
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

Answer all questions.

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3.1. A 28-year-old male from a tea estate presented to the outpatient department with a 2-week history of foul-smelling, watery diarrhoea, abdominal bloating, and flatulence. He reported significant recent weight loss. He often consumes untreated water. On further questioning, he reported fatigue and passing dark-coloured stools over the past year. He also stated that he had not received any deworming medication during the past three years. On physical examination, he was found to be pale. A full blood count revealed mild eosinophilia and a haemoglobin level of 7 g/dL.

3.1.1. State the two (2) parasitic species with which this patient is most likely co-infected. (10 marks)

1.
2.

3.1.2. Explain the pathophysiological mechanism of how this patient developed anaemia. (10 marks)

3.1.3. State the samples that should be collected to establish the diagnosis of each parasite mentioned in 3.1.1. (05 marks)

1.
2.



UNIVERSITY OF RUHUNA
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Third Examination for Medical Degrees (Part I)
17th August 2025
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

3.1.4. Draw and label the diagnostic stages of the parasites mentioned under 3.1.1.

(10 marks)

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3.1.5. State the appropriate drug treatments for the parasites you mentioned in 3.1.1.

(10 marks)

1.
2.

3.1.6. State one (1) important preventive measure for each parasite mentioned in 3.1.1.

(05 marks)

1.
2.

3.2. A medical officer was appointed to his first post at a peripheral hospital in the Anuradhapura District. During his first night shift in the Outpatient Department (OPD), a previously healthy man presented with severe abdominal cramps and a headache that had awakened him from sleep. He recalled feeling something crawl over his leg during the night but did not think much of it. On examination, there were no obvious fang marks. A snake bite envenomation was suspected.

3.2.1. State the most likely venomous snake responsible for this patient's envenoming, giving reasons for your answer.

(10 marks)

Snake:
Reasons:



M	D	2	0						
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1.
2.
3.
4.
5.

Diagram:



M	D	2	0						
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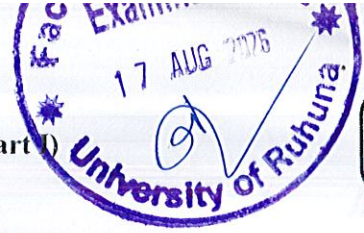
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(10 marks)

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17th August 2026
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

Answer all questions.

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4.

4.1. Leishmaniasis incidence has been rising in Sri Lanka over the past several decades. Transmission is ongoing islandwide, with several regions being considered hotspots.

4.1.1. State the clinical forms of leishmaniasis reported in Sri Lanka. (5 marks)

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4.1.2. Out of the forms you mentioned in 4.1.1, which one is the dominant clinical form seen in Sri Lanka? (5 marks)

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4.1.3. State precisely, the parasite and the vector of this disease in Sri Lanka. (10 marks)

Parasite	
Vector	

4.1.4. For a patient suspected of having the dominant clinical form mentioned in 4.1.2, list three (3) clinical samples that can be collected and three (3) laboratory diagnostic tests that can be performed using these samples. (15 marks)

Samples	
Diagnostic tests	

4.1.5. State two (2) public health measures taken by the government of Sri Lanka for the control of this disease. (5 marks)



UNIVERSITY OF RUHUNA
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

- 4.1.6.** Draw and label two diagnostic stages of the parasite that can be demonstrated by the diagnostic tests mentioned in 4.1.4. **(10 marks)**

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- 4.2.** Answer the questions based on the following case scenarios.

- 4.2.1** A large number of microscopic larvae are detected in a 30-year-old male patient with watery diarrhoea. On further screening, he is found to be HIV positive.

- 4.2.1.1.** State the most likely causative parasite. **(3 marks)**

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- 4.2.1.2.** Briefly explain the pathophysiological basis for the presence of a large number of larvae in the stool of this patient. **(10 marks)**

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FACULTY OF MEDICINE
Third Examination for Medical Degrees (Part I)
17th August 2026
PARASITOLOGY – Paper II
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

4.2.1.3. State two (2) severe complications that may occur if the patient remains untreated. (2 marks)

4.2.2. A 2-year-old child is brought to the outpatient department with a painless scrotal lump. His mother reports that about two weeks earlier, he developed swelling with erythema over the thigh, which gradually migrated upwards. On the day of the presentation, the mother noticed a lump over the scrotum while bathing him.

4.2.2.1. State the most likely parasite causing the above clinical presentation. (5 marks)

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4.2.2.2. Briefly explain how this child acquired this parasitic infection with reference to the reservoir host, vector, infective stage and human host. (10 marks)

4.2.2.3. What is the recommended management for this child? (5 marks)

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FACULTY OF MEDICINE
Third Examination for Medical Degrees (Part I)
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PARASITOLOGY – Paper II
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Index Number

M	D	2	0						
---	---	---	---	--	--	--	--	--	--

4.2.3. A foreigner presents with a severely itchy, curvilinear erythematous track on the dorsum of his foot for five days. On examination, the skin surrounding the track is excoriated, and crusted pustules are present. He claims to have walked barefoot on the beach.

4.2.3.1. What is the most likely diagnosis of this patient?

(3 marks)

--

4.2.3.2. State two (2) parasite species that can cause this condition and two definitive hosts.

(4 marks)

Parasite species	1.
	2.
Definitive hosts	1.
	2.

4.2.3.3. Briefly describe the mode of transmission to humans.

(6 marks)

4.2.3.4. What is the recommended management for this patient?

(2 marks)

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