

**BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS**  
**MDU4653 – PARASITOLOGY AND ENTOMOLOGY I**  
**FINAL EXAMINATION**

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DATE: 9<sup>th</sup> MARCH 2022

TIME: 01.30 PM – 04.30 PM

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**Part B: Structured Essay Questions (40 marks)**

Q-1

A 24-year-old female patient presented to the genito-urinary unit of Teaching Hospital, Karapitiya complaining of lower abdominal pain and yellowish green, malodorous vaginal discharge. A pelvic exam was performed and mild cervical tenderness was noted. The cervix was red, and inflamed. Wet mount preparation of the vaginal discharge showed numerous organisms with quivering motility.

1.1 What is your probable diagnosis and the causative organism? (2 marks)

Probable diagnosis .....

Causative organism .....

1.2 State other non-pathogenic species of the above organism that resides in humans along with their habitat. (3 marks)

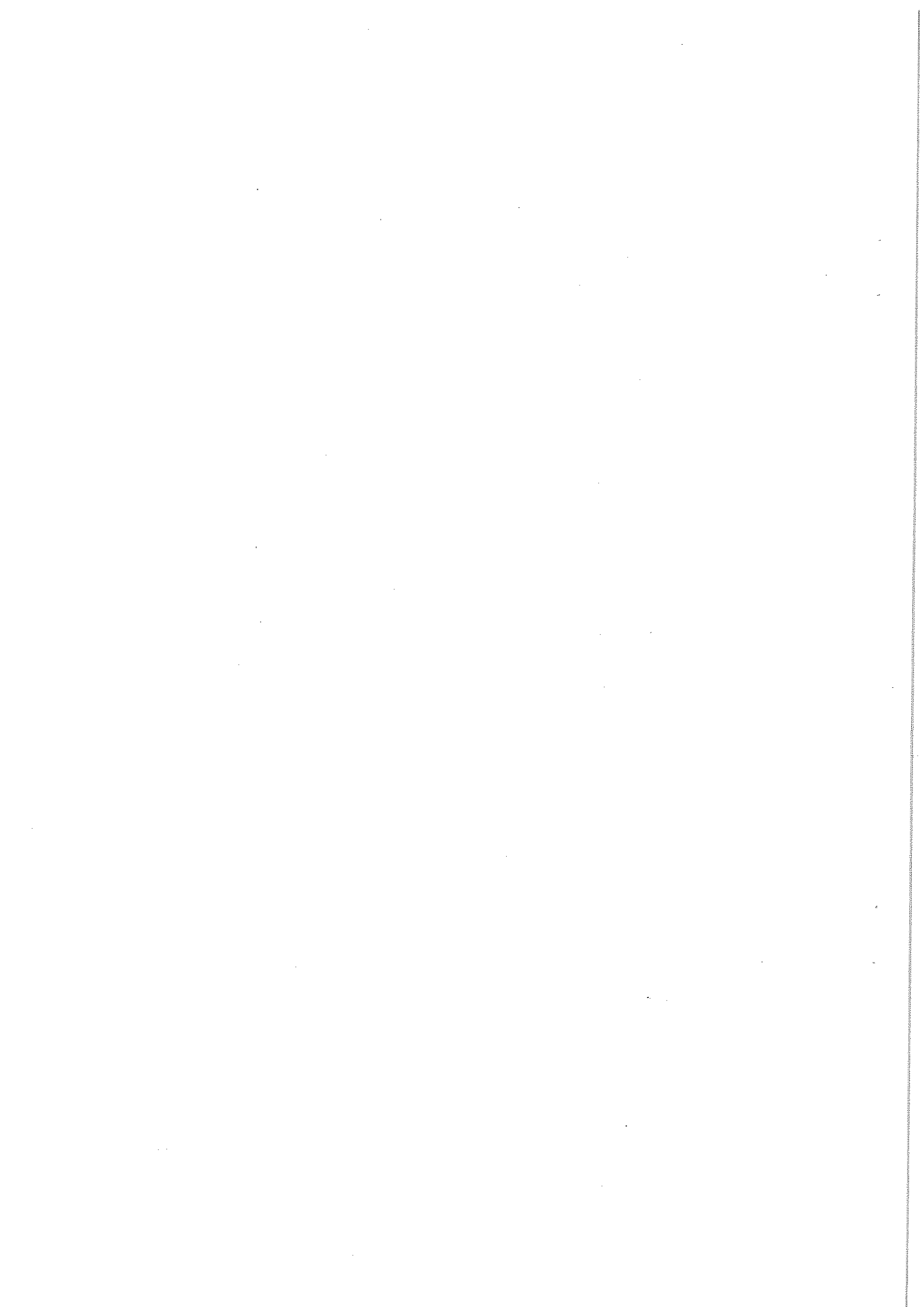
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1.3 Briefly explain the other methods used for laboratory diagnosis of the above organism.

(5 marks)

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(Total 10 marks)



INDEX NO: .....

Q-2

A 3-year-old boy presented to the Pediatric Unit of Lady Ridgway Hospital with intermittent diarrhea and gradual weight loss during the last 3 months. On clinical examination the Pediatrician found growth retardation and malabsorption syndrome. Macroscopy of the stool specimen showed greasy, foul-smelling, frothy stools. Iodine preparation of stool examination showed cysts with remnants of flagella.

2.1 What is the most probable diagnosis and the causative organism? (2 marks)

Probable diagnosis .....

Causative organism .....

2.2 List the morphological features that would help you to differentiate the causative organism mentioned in the 2.1, from *Chilomastix mesnili*. (4 marks)

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2.3 Briefly describe the prevention and control of the disease caused by the organism mentioned in 2.1. (4 marks)

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(Total 10 marks)

Q-3

A 2-year-old girl was admitted to the Emergency Treatment Unit of Teaching Hospital Trincomalee with a history of refusal of feeds, hyperactive bowel sounds, vomiting and a change in stool texture. After a series of investigations, patient was diagnosed of having amoebic dysentery.

3.1 State the laboratory diagnosis of amoebic dysentery? (4 marks)

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3.2 How can you morphologically differentiate *Entamoeba histolytica* from *Entamoeba dispar*? (3 marks)

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3.3 Briefly explain the importance of identifying non-pathogenic intestinal amoeba in faecal specimen when diagnosing amoebic dysentery. (3 marks)

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(Total 10 marks)

INDEX NO: .....

Q-4

4.1 Name one (01) characteristic feature that can be used to differentiate adult Anopheline mosquitoes from Culicine mosquitoes? (4 marks)

Gender	Group	Characteristic features
Male	Anopheline	
	Culicine	
Female	Anopheline	
	Culicine	

4.2 List two (02) diseases that can be transmitted by *Mansonia* species. (2 marks)

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4.3 Briefly explain the medical importance of blue bottle fly. (4 marks)

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(Total 10 marks)

**Part C: Essay Question (30 marks)**

1. Describe the life cycle of *Plasmodium vivax*. (15 marks)
  
2. Write short notes on the following. (15 marks)
  - 2.1 Differentiating features of *Wuchereria bancrofti* and *Brugia malayi* microfilariae
  - 2.2 Pathogenesis of hydatid disease.

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