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009

16 MAR 2023

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2022/2023 – SEMESTER I

THE OPEN UNIVERSITY OF SRI LANKA
KANDY-REGIONAL CENTER
EXAMINATION



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU4307 – VIROLOGY & MYCOLOGY – LEVEL 4
FINAL EXAMINATION

DURATION: 03 HOURS

DATE: 16TH MARCH 2023

TIME: 9.30 AM – 12.30 PM

INDEX NUMBER:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of 13 pages with 30 Multiple Choice Questions (Part A), 04 Structured Essay Questions (Part B) and 02 Essay Questions (Part C).
- Write your INDEX NUMBER in the space provided.
- Answer ALL questions.
- **Multiple Choice Questions (Part A):** Indicate the best answer for each question, in the answer sheet provided by placing a cross (x) in INK in the relevant cage. (Answers in pencil will NOT be marked).
- **Structured Essay Questions (Part B):** Write answers within the space provided.
- **Essay Questions (Part C):** Write the answer in the booklet provided.
- Do not remove any page/part of this question paper from the examination hall.
- Mobile phones and any other electronic equipment are NOT allowed. Leave them outside.

INDEX NO:

PART B – Structured Essay Questions (40 Marks)

1.0 Viral hepatitis is mainly caused by five different viruses which belong to distinct virus families and they are ordered alphabetically according to their discovery.

1.1. Mention five (05) different hepatitis viruses and the main mode of transmission of each of these viruses. (2 marks)

	Virus	Main mode of transmission
i.		
ii.		
iii.		
iv.		
v.		

1.2 Serologic markers play an important role in diagnosis of hepatitis B. Outline four (04) serologic markers of hepatitis B and their role in diagnosis of hepatitis B. (4 marks)

	Marker	Role in diagnosis of hepatitis B
i.		
ii.		
iii.		
iv.		

[illegible]

INDEX NO:

2.0 Acquired immune deficiency syndrome (AIDS) is caused by human immunodeficiency virus (HIV) which is known to be sexually transmitted from one person to another.

2.1. What is AIDS?

(01 mark)

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2.2. State four (04) group of people who are recommended for screening for HIV. (01 mark)

- i.
- ii.
- iii.
- iv.

2.3. Outline the different types of laboratory techniques for detecting HIV and the purpose of each testing in diagnosis of the infection/ progression of the disease. (04 marks)

This image shows a full page of a handwriting practice worksheet. It features approximately 20 horizontal rows. Each row is defined by two parallel dotted lines, creating a series of uniform channels for letter height. The paper is otherwise blank, with no margins or additional markings.

2.4. Briefly discuss two (02) different approaches for prevention and control of HIV.

(04 marks)

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(Total: 10 Marks)

3.0 50-year-old uncontrolled diabetic patient presented with sudden onset facial pain and swelling. Invasive fungal sinusitis was suspected.

3.1. Name two (2) mould genera that can cause invasive fungal sinusitis.

(2 marks)

i.....

ii.....

3.2. Outline the important steps in the processing of the sample collected from the sinuses from this patient.

(4 marks)

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INDEX NO:

3.3. Describe how you would differentiate the two genera mentioned in 3.1 in the laboratory.
(04 marks)

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(Total: 10 Marks)

4.0 28-year-old leukaemia patient presented with high grade fever not responding to broad spectrum antibiotics.

4.1. Name one (01) yeast that can lead to infection in this patient. (2 marks)

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4.2. How would you process the blood culture sample of above patient by automated blood culture bottle? (4 marks)

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4.3. Describe one (01) test used in the identification of the yeast with the expected findings.

(04 marks)

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(Total: 10 Marks)

PART C – Essay Questions (30 marks)

1. Disuses the three (03) different vector control approaches for prevention of dengue.
(15 marks)
2. Ten-year-old boy presented with a suspected dermatophyte lesion in the scalp.
(15 marks)

INDEX NO:

THE OPEN UNIVERSITY OF SRI LANKA
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DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2022/2023 – SEMESTER I



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU4307 – VIROLOGY & MYCOLOGY – LEVEL 4
FINAL EXAMINATION

ANSWER SHEET FOR PART A

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 11. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 21. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 2. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 12. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 22. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 3. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 13. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 23. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 4. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 14. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 24. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 6. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 16. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 26. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 8. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 18. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 28. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 9. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 19. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 29. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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| 10. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 20. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d | 30. <table border="1"><tr><td>a</td><td>b</td><td>c</td><td>d</td></tr></table> | a | b | c | d |
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THEORY



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EXERCISES FOR PART I

1. a. b. c. d.	2. a. b. c. d.	3. a. b. c. d.
4. a. b. c. d.	5. a. b. c. d.	6. a. b. c. d.
7. a. b. c. d.	8. a. b. c. d.	9. a. b. c. d.
10. a. b. c. d.	11. a. b. c. d.	12. a. b. c. d.
13. a. b. c. d.	14. a. b. c. d.	15. a. b. c. d.
16. a. b. c. d.	17. a. b. c. d.	18. a. b. c. d.
19. a. b. c. d.	20. a. b. c. d.	21. a. b. c. d.
22. a. b. c. d.	23. a. b. c. d.	24. a. b. c. d.
25. a. b. c. d.	26. a. b. c. d.	27. a. b. c. d.
28. a. b. c. d.	29. a. b. c. d.	30. a. b. c. d.