

Sample

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

22 MAR 2023
EXAMINATION



00060



BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU6302 – PUBLIC HEALTH MICROBIOLOGY – LEVEL 6
FINAL EXAMINATION DURATION: 03 HOURS

DATE: 22ND MARCH 2023

TIME: 09.30AM – 12.30PM

INDEX NO:

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.

PART B – Structured Essay Questions (40 Marks)

1. Fecal contamination of water is routinely detected by microbiological analysis. Investigating water samples for all the possible pathogens is impractical in routine analysis. Thereby Total coliforms, faecal coliforms and *Escherichia coli* are used as indicator organisms to monitor the faecal cont.

1.1 Define what are “coliforms”. (02 marks)

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1.2 Briefly explain how faecal coliforms in a water sample are differentiated from total coliforms. (04 marks)

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1.3 Discuss why *E. coli* is known as a more specific indicator of faecal pollution in water than other coliforms. (04 marks)

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(Total: 10 Marks)

2. Influenza is an infectious respiratory disease caused by influenza viruses, commonly influenza virus A, B and C. Annual influenza vaccination is an important public health measure for preventing influenza infection.

2.1 Mention two (02) natural process occur in influenza viruses that result in genetically/ antigenically different influenza viruses. (02 marks)

i.....

ii.....

INDEX NO:

2.2 Influenza A viruses are the only influenza viruses known to cause flu **pandemics**. Briefly explain the reason for this. (04 marks)

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2.3 Briefly discuss why is it important to give seasonal influenza vaccine yearly. (04 marks)

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(Total: 10 Marks)

3. Dengue is a vector borne disease endemic in Sri Lanka.

3.1 What is meant by “vector-borne “diseases? (01 mark)

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3.2 Compare and contrast the mechanical and biological vectors, giving examples.(04 marks)

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3.3 Discuss vector control strategies that are used for prevention and control of dengue in Sri Lanka. (05 marks)

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(Total: 10 Marks)

4. The novel coronavirus is a model for understanding what exactly a pandemic is and how it influences public health globally.

4.1 Define the following terms used to express the rate of disease spread. State one example disease in the Sri Lankan context to explain each event.

(a) Outbreak (2.5 marks)

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(b) Endemic (2.5 marks)

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(c) Epidemic

(2.5 marks)

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(d) Pandemic

(2.5 marks)

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(Total: 10 Marks)

PART C – Essay Questions (30 marks)

1. Discuss the importance of immunization programme in public health. (15 marks)
2. Critically evaluate the impact of changing food behaviors and globalization in the increase of spread of food borne pathogens worldwide. (15 marks)

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BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU6302 – PUBLIC HEALTH MICROBIOLOGY – LEVEL 6
FINAL EXAMINATION

ANSWER SHEET FOR PART A

1.

a	b	c	d
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2.

a	b	c	d
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3.

a	b	c	d
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4.

a	b	c	d
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5.

a	b	c	d
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6.

a	b	c	d
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7.

a	b	c	d
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8.

a	b	c	d
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9.

a	b	c	d
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10.

a	b	c	d
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11.

a	b	c	d
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12.

a	b	c	d
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13.

a	b	c	d
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14.

a	b	c	d
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15.

a	b	c	d
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16.

a	b	c	d
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17.

a	b	c	d
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18.

a	b	c	d
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19.

a	b	c	d
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20.

a	b	c	d
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21.

a	b	c	d
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22.

a	b	c	d
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23.

a	b	c	d
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24.

a	b	c	d
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25.

a	b	c	d
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26.

a	b	c	d
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27.

a	b	c	d
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28.

a	b	c	d
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29.

a	b	c	d
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30.

a	b	c	d
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THE DEPARTMENT OF THE ARMY
HEADQUARTERS
WASHINGTON, D. C.
OFFICE OF THE CHIEF OF STAFF
MEMORANDUM FOR THE SECRETARY OF THE ARMY
SUBJECT: [Illegible]

