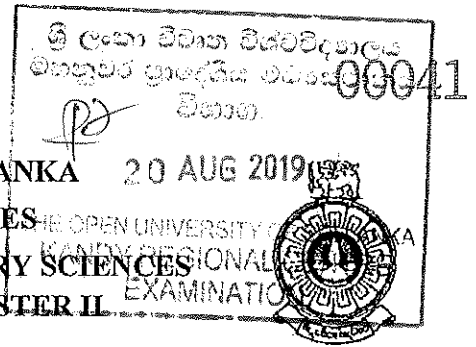


THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2018/2019 – SEMESTER II



BACHELOR OF MEDICAL LABORATORY SCIENCE HONOURS
MDU4302 – DIAGNOSTIC BACTERIOLOGY
NO BOOK TEST 1

DURATION: 1 1/2 HOUR

DATE: 20th AUGUST 2019

TIME: 3.00 PM – 4.30 PM

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of 12 pages with 10 Multiple Choice Questions (Part A) and 04 Structured Essay Questions (Part B) and 01 Essay Question (Part C).
- Write your Registration Number in the space provided.
- Answer ALL questions.
- **Multiple Choice Questions (Part A):** Indicate answers 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 Question (Part C):** Write the answer on the provided papers.
- 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.

Registration No.....

Name:

Address:

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Registration No.....

1.3 List **THREE** (03) rejection criteria for a midstream urine specimen received to the laboratory? (3 marks)

i.

ii.

iii.

1.4 A urine culture isolated two types of organisms with 103 colonies of *E. coli* and 9 colonies of *Staphylococcus* species respectively. How do you report that result? (5 marks)

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.....

1.5 List **TWO** (02) virulence factors possessed by *E. coli*. (2 marks)

i.

ii.

Total 20 marks

Q2

2.1 What is the optimal time for cerebrospinal fluid (CSF) specimen collection? (2 marks)

.....

2.2 Why CSF specimens for bacterial culture should not be refrigerated? (2 marks)

.....

.....

2.3 The figure 1 shows the cell counting area of the Improved Neubauer Chamber of depth 0.1mm. The cell counts in squares 1, 3, 7 and 9 were 4, 7, 5 and 6 respectively.

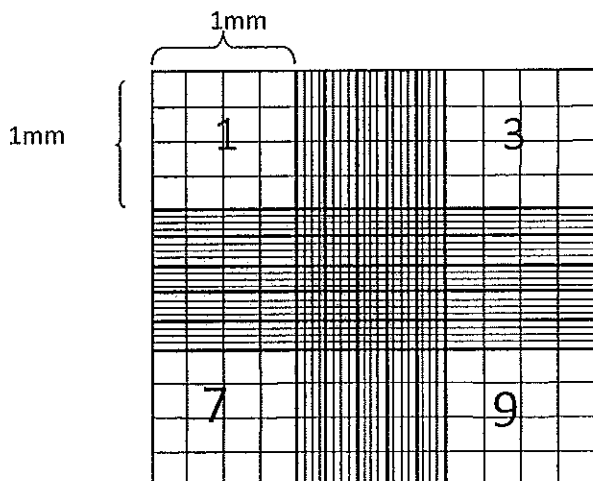


Figure 1

Calculate the number of cells in 1 μ l of CSF. (6 marks)

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Q3

Genital ulcer is an ulcer located in the genital area which usually caused by sexually transmitted organisms. Syphilis is one of the common genital ulcers which occurs mainly on the external genitals, vagina and anus or in the rectum.

3.1 If untreated, the disease is progressed. Write a short note on **FOUR (04)** stages of syphilis? (10 marks)

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3.3 List **TWO (02)** types of specimens that can be collected for diagnosis of syphilis? (4 marks)

- i.
- ii.

Registration No.....

3.4 List ONE (01) microscopic method and TWO (02) serological tests that can be used to diagnose Syphilis? (6 marks)

Microscopic method:

Serological tests:

i.

ii.

Total 20 marks

Q4

Ingestion of pathogens can cause many different infections in the gastrointestinal tract (GIT) and can spread to other parts of the body. Peptic ulcers are one of bacterial infections in the GIT.

4.1 Name the bacterium causing peptic ulcers? (2 marks)

.....

4.2 Laboratory diagnosis of the causative agent can be divided into two categories as invasive tests and non-invasive tests.

4.2.1 List FOUR (04) invasive laboratory tests that can be used to diagnose above mentioned bacterium in 4.1. (8 marks)

i.

ii.

iii.

iv.

4.2.2 List **TWO (02)** non-invasive laboratory tests that can be used to diagnose above mentioned bacterium in 4.1. (4 marks)

- i.
- ii.

4.3 List **THREE (03)** bacteria causing blood and mucous diarrhoea? (6 marks)

- i.
- ii.
- iii.

Total 20 marks

Part C

- 1. Briefly describe the followings related to **laboratory diagnosis of intra-venous catheter associated infections** during the removal of catheter.
 - 1.1 Specimens collection
 - 1.2 Specimens processing
 - 1.3 Interpretation of readings (10 marks)

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BACHELOR OF MEDICAL LABORATORY SCIENCE HONOURS

MDU4302: DIAGNOSTIC BACTERIOLOGY

NO BOOK TEST 1

REGISTRATION NO:

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
---	---	---	---

10.

a	b	c	d
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