The Open University of Sri Lanka

Bachelor of Medical Laboratory Sciences (B.MLS)

MLU2345- Systemic & Clinical Microbiology 1

Semester 01- Academic year 2015/2016

No Book Test 01

Return your question paper with the answer sheet

Date: 09.09.2015	**Duration – 1 1/2hour**
Time: 10.00 a m - 11.30 a m	**Registration No.....**

Please read the following instructions carefully before you answer the paper.
(100 marks)

Part – A (20 marks)

There are 10 multiple choice questions in this paper, each question with five responses. Select the **correct response** and mark in the given answer sheet.

Part - B (10 marks)

You are given 10 True / False questions. State whether they are "True" or "False" by underlining the correct response

Part C (40 marks)
You are given two (02) short answer questions. Each question contains four (04) parts. Answer all the questions in given spaces.

Part – D (30 marks)

There are two (02) structured essay questions. Each question contains three (03) parts. Answer all the questions in given spaces.

Good Luck!

Part A– Multiple Choice Questions (20 Marks)

01 *E. coli* is the commonest isolate form both uncomplicated and complicated urinary tract infections. (True/ False)

02 Haematuria may be present in Urinary tract infections (UTI) (True/ False)

03 Cleaning with 70% alcohol is adequate in specimen collection for blood culture (True/ False)

04 If pus obtained by a surgery is cultured ABST should be performed to all isolates. (True/ False)

05 If there is delay blood culture bottles should be refrigerated (True/ False)

06 Catheter related UTI are called nosocomial UTI (True/ False)

07 Aminoglycosides (eg – Gentamicin) are inappropriate for the treatment of meningitis because of its poor penetration into cerebrospinal fluid. (True/ False)

08 Gas pack and catalyst is used in anaerobic culture (True/ False)

09 HIV virus can not cause encephalitis (True/ False)

10 Bacteria, viruses, fungi and parasites can cause meningitis (True/ False)

Part C – Short Answer Questions (40 marks)

1.

1.1. State four (04) common signs and/or symptoms in urinary tract infections (UTI) (4 marks)

i. .....

ii. .....

iii. .....

iv. .....

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1.2. List four (04) predisposing factors for UTI (4 marks)

i. .....

ii. .....

iii. .....

iv. .....

1.3. What is the culture medium used for routine urine cultures (8 marks)

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1.3.1. Name two important growth supplements in this medium

i. ..... ii. .....

1.3.2. What is the indicator used in this medium

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1.4. How would you instruct a patient to collect urine for the investigation of urinary tuberculosis (4 marks)

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2.

2.1. List four (04) main barriers of Central Nervous system (CNS) for the prevention of infections (6 marks)

i. .....

ii. .....

iii. .....

iv. .....

2.2. Name three (03) common routes that pathogens reach the CNS (3 marks)

i. .....

ii. .....

iii. .....

2.3. List the basic steps in specimen collection procedure of a patient suspected to have meningitis (6 marks)

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2.4. What are the possible steps that would be taken, if a negative CSF culture had positive gram smear or biochemical results suggestive of meningitis? (5 marks)

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Part – D - Structured Essay Questions (30 marks)

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1.1. Briefly explain the differences between bacteremia and septicemia (4 marks)

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1.2. Brain Heart Infusion broth (BHI) is the culture medium used for blood culture. What is the preferable blood to BHI ratio and briefly explain the reason for using a higher dilution. (5 marks)

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1.3. Briefly explain the specimen collection procedure of a patient suspected to have intravenous catheter related bacteremia (6 marks)

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2.

2.1. Briefly describe the steps in analytical procedure of a synovial fluid sample received in a microbiology laboratory (5 marks)

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2.2. Briefly explain the specimen collection procedure for pus culture in (6 marks)

2.2.1. A open wound

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2.2.2. A closed abscess

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2.3. Discuss the results interpretation and reporting procedure of pus cultures. (4 marks)

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