



**Bachelor of Medical Laboratory Sciences (B.MLS)**

**MLU2342 – Clinical Biochemistry**

**Semester 02- Academic year 2015/2016**

**Final Examination**

*Return your question papers with the answer sheets*

<b>Date: 14. 07. 2016</b>	<b>Duration: 3 hours</b>
<b>Time: 09.30 a.m. - 12.30 p.m.</b>	<b>Index No:.....</b>

**Please read the following instructions carefully before you answer the paper.**

**Part A: Multiple Choice Questions (30 marks)**

There are thirty multiple choice questions in this paper, each question with four responses. Select the **best response** and put 'X' mark for the correct answer in the given answer sheet.

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

You are given four questions each question contains three parts. Answer all the questions in given answer sheets.

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

There are two essay questions. Answer the questions separately in two answer booklets.

**Good Luck!**

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

*Answer all the questions.*

1.

1.1 List **three** (03) factors affecting the urine volume. (03 marks)

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

1.2 What are the possible changes of a sample of urine on standing? (04 marks)

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

1.3 Briefly explain the method used to detect Bence Jones proteins by heat coagulation test. (03 marks)

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Index No.....

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2. Body fluid analysis.

2.1. List **three** (03) body fluids that are analyzed in the clinical chemistry laboratory.

(03 marks)

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

2.2. List **two** (02) anticoagulants used in clinical chemistry and their modes of actions.

(04 marks)

Anticoagulant	Modes of action
i.	
ii.	

2.3. List **three** (03) physiological and biological factors affecting body fluid composition.

(03 marks)

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

3. Cerebro- spinal fluid analysis.

3.1. List **three** (03) changes of a CSF sample when there is a delay in processing.

(03 marks)

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

3.2. List **four** (04) chromogenic substances that can be present in CSF of a patient.

(04 marks)

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

3.3. Write the principle of Ortho-toluidine method.

(03 marks)

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4.

4.1. List **three** (03) factors that affect the results of laboratory measurements of seminal fluid. (03 marks)

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

4.2. Write the constituents of the seminal fluid with respect to the various secretions observed in the ejaculate. (04 marks)

Secretion	Constituent
Seminal vesicles	i. ....
	ii. ....
Prostatic secretions	i. ....
	ii. ....

4.3. List **three** (03) main types of sperm motility and write the identification features of each type. (03 marks)

Type of motility	Identification
i.	ii.
iii.	iv.
v.	vi.

**- Part C: Essay Questions (30 marks)**

Answer all the questions.

1. Describe the technique of using a urinary reagent strip (dipstick) in the laboratory. (15 marks)
2. Write an account on sperm separation methods. (15 marks)

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