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The Open University of Sri Lanka
06 SEP 2023
Department of Medical Laboratory

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES

ACADEMIC YEAR 2022/2023 – SEMESTER II
BACHELOR OF MEDICAL LABORATORY SCIENCES (BMLS) HONOURS
MDU4303 – CLINICAL BIOCHEMISTRY II – LEVEL4
FINAL EXAMINATION **DURATION: 03 HOURS**

DATE:06TH SEPTEMBER 2023 TIME: 09.00 AM –12.00 NOON

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PART B – Structured Essay Questions (40 marks)

Q1

1.1. List four (04) examples for conditions where decreased albumin can be observed in a densitometry pattern of normal resolution serum protein electrophoresis. (02 marks)

i. .....

ii. .....

iii. .....

iv. .....

1.2. Give one (01) type of protein present in each of the following regions of normal resolution serum protein electrophoresis. (03 Marks)

1.2.1. α1-Globulin region: .....

1.2.2. α2-Globulin region: .....

1.2.3. β-Globulin region: .....

1.3. Briefly explain the possible results of serum electrophoresis of a subject with nephrotic syndrome with the aid of an illustration. (05 Marks)

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(Total: 10 Marks)

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Q2

2.1. List four (04) Functions of cerebrospinal fluid (CSF). (02 marks)

i. .....

ii. .....

iii. .....

iv. .....

2.2. List four (04) major categories of diseases associated with central nervous system (CNS) that can be diagnosed with the aid of CSF analysis. (02 Marks)

i. .....

ii. .....

iii. .....

iv. .....

2.3. List four (04) contraindications for lumbar puncture. (02 marks)

i. .....

ii. .....

iii. .....

iv. .....

2.4. Describe how the analysis of CSF specimens will aid the diagnosis of suspected CNS bacterial infection? (04 Marks)

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(Total: 10 Marks)

Q3

3.1. List four (04) hormones that involve in female reproduction? (02 Marks)

i. .....

ii. .....

iii. .....

iv. .....

3.2. List three (03) methods can be used to evaluate the ovulation. (03 marks)

i. .....

ii. .....

iii. .....

3.3. Briefly describe the changes of hormone levels mentioned in 3.1 during the menstrual cycle with an aid of an illustration. (05 marks)

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(Total: 10 Marks)

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Q4

4.1. List five (05) biochemical measures that are included in the lipid profile. (2.5 marks)

4.2. Provide one (01) example of method of assessments for each biochemical measure mentioned. (2.5 marks)

	4.1. Biochemical measure	**4.2. Method of assessment**
i.		
ii.		
iii.		
iv.		
v.		

4.3. Outline the methods of measurement of apolipoproteins and the significance of measurement of apolipoproteins. (05 marks)

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(Total: 10 Marks)

PART C – Essay Question (30 Marks)

1. Write an essay on "electrophoresis in determination of protein concentration of serum/ plasma". (15 Marks)

2. Write an essay on "influence of site of collection and haemolysis on blood composition". (15 Marks)

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