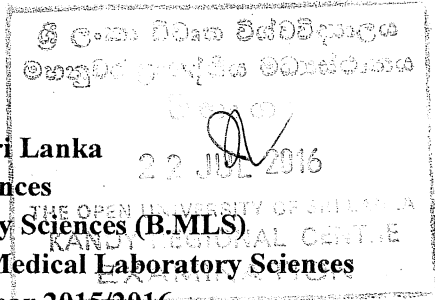




The Open University of Sri Lanka
Faculty of Health Sciences
Bachelor of Medical Laboratory Sciences (B.MLS)
MLU3248- Analytical Techniques for Medical Laboratory Sciences
Semester 02- Academic year 2015/2016
Final Examination July 2016



029

Return your question papers with the answer sheets

Date: 22.07.2016	Duration - 3 hours
Time: 09.30a. m. – 12.30 p. m.	Index No.....

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

(100 marks)

Part A: Multiple Choice Questions (30 marks)

There are **thirty** (30) multiple choice questions in this paper, each question with four responses. Select the **correct response** and mark in the given answer sheet.

Part B: Structured Essay Questions (30 marks)

There are **three** (03) questions. Each question contains four parts. Answer all the questions in given spaces.

Part C: Essay Questions (40 marks)

There are **two** (02) essay questions. Answer the questions in given sheets.

Good Luck!

Part B: Structured Essay Questions (30 marks)

There are three questions given. Each question contains four parts. Answer all the questions in given spaces.

1 a. How do you determine the accuracy and precision of the results of a flame photometer? (2.5 marks)

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1 b. What is the method used to determine the linearity of the results of a photometer?
(2.5 marks)

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1 c. What are the precautions taken to obtain accurate results when the photometer readings are not linear?
(2.5 marks)

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1 d. Name another technique and the basic principle which can be used instead of flame photometry?
(2.5 marks)

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2 a . Give main types of separation mechanism in chromatography. (2.5 marks)

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2 b. What is meant by lithium internal standardisation in flame photometry? (2.5 marks)

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2 c. What is meant by florescence? (2.5 marks)

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2 d. Show the main components of an atomic absorption spectrometer using a labelled diagram. (2.5 marks)

3 a. What is the difference between immunochromatography and normal chromatography? (2.5 marks)

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3 b. What is indicated when both sample line and the control line are not visible in immunochromatography? (2.5 marks)

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3 c. Draw a diagram to show the antigen antibody reaction in immune chromatography.
(2.5 marks)

3 d. What is the action of sample movement across the immune-chromatography cassette?
(2.5 marks)

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Part C: Essay Questions (40 marks)

Two essay questions are given. Answer the questions in given spaces.

1.

- a. Write an account on separation techniques indicating the principle and application of each. (12 marks)
- b. Write an account on the use of cellulose acetate or gel electrophoresis in the diagnosis of nephrotic syndrome? (8 marks)

2.

- a. What are the special features of chemical reactions commonly used in automation? (10 marks)
- b. Briefly explain the steps involved in the quantitative estimation of urine albumin using Radial Immuno Diffusion technique. (10 marks)

-----THE END-----