

UNIVERSITY OF JAFFNA, SRI LANKA  
FACULTY OF ALLIED HEALTH SCIENCES  
SECOND YEAR SECOND SEMESTER EXAMINATION IN BScHons (MLS) – 2023  
MLSLQ 2243 LABORATORY MANAGEMENT AND QUALITY ASSURANCE

Date: 03.06.2025

Time: 2 Hours

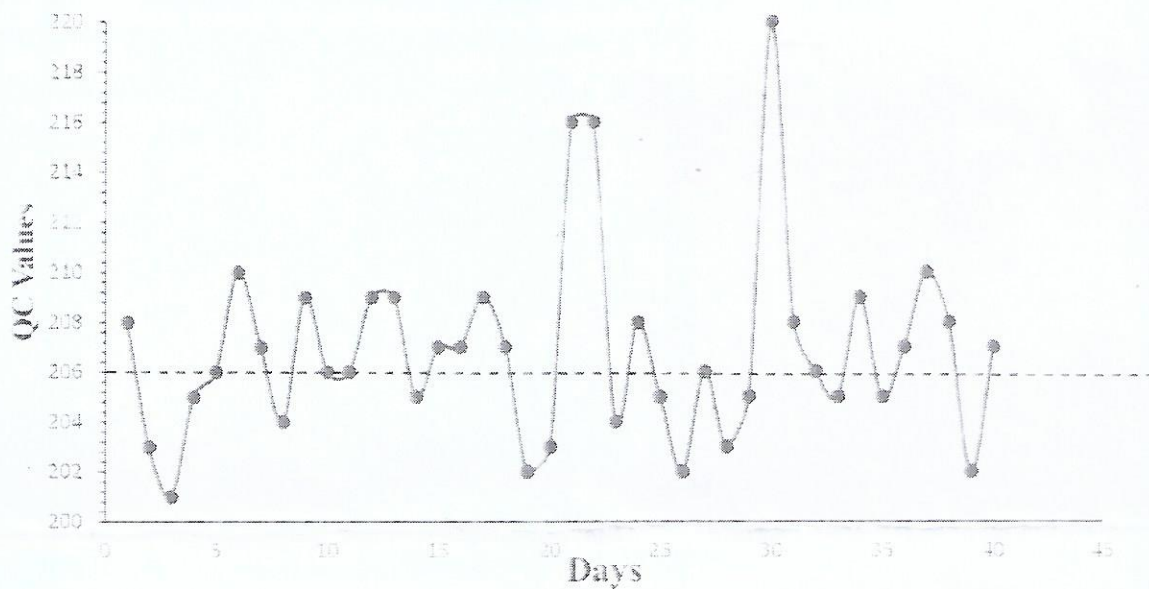
Answer all Six Questions.

Answer Part A and B in Separate Answer Books.

PART A

1. The Levey-Jennings chart below displays the internal Quality Control (IQC) data for Triglycerides from a clinical laboratory in March 2025. The estimated mean and standard deviation are 206.88 and 3.85, respectively.

LJ chart for Triglyceride (Level 2) QC



- 1.1. Outline the following Quality Control (QC) rules

1.1.1. Control rule  $1_{3s}$

(10 Marks)

1.1.2. Control rule  $2_{2s}$

(10 Marks)

1.1.3. Control rule  $R_{4s}$

(10 Marks)

- 1.2. Briefly explain the key steps involved in planning a Statistical Quality Control (SQC) procedure. (30 Marks)
- 1.3. Perform the appropriate calculations and identify the types of errors found in the laboratory data above, specifying the days on which each error occurred. (40 Marks)
2. Write notes on
- 2.1. The application of the following statistical analyses in a clinical laboratory setting,
- 2.1.1. Youden plot. (25 Marks)
- 2.1.2. Receiver operating characteristic (ROC) curve. (25 Marks)
- 2.2. Steps involved in purchasing equipments for a clinical laboratory (50 Marks)
- 3.
- 3.1. Name three International accreditation bodies that provide clinical laboratory accreditation (10 Marks)
- 3.2. Briefly describe the International accreditation bodies you mentioned in 3.1. (30 Marks)
- 3.3. List five characteristics of an accreditation body (15 Marks)
- 3.4. Briefly describe about Sri Lanka Accreditation Board (SLAB) (20 Marks)
- 3.5. Write on the benefits of accreditation (25 Marks)

### PART B

- 4.
- 4.1 What do you mean by the term 'management'? (20 Marks)
- 4.2 List any five characteristics of management. (20 Marks)
- 4.3 "Management is both a science and an art." Explain this statement with suitable arguments. (30 Marks)
- 4.4 Analyze the challenges managers face in today's dynamic business environment. (30 Marks)

5.

- 5.1 Define the term 'Information System (IS)'. (20 Marks)
- 5.2 Outline the major areas of IS knowledge required by business professionals. (20 Marks)
- 5.3 Discuss the managerial challenges posed by Information Technology in modern organizations. (30 Marks)
- 5.4 Critically evaluate the strategic importance of the IS function in achieving competitive advantage for a business. (30 Marks)

6.

- 6.1 What do you mean by the term 'records management'? (20 Marks)
- 6.2 State the steps involved in planning a filing system for a new department. (20 Marks)
- 6.3 "A good filing system is more about accessibility than safety." Argue for or against this perspective. (30 Marks)
- 6.4 Critically assess the challenges of decentralized filing in a hospital setting. (30 Marks)