

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES**  
**THIRD YEAR SECOND SEMESTER EXAMINATION – FEBRUARY 2014**  
**MLSLR 3201 LABORATORY MANAGEMENT AND RECORD KEEPING**

**Date: 10.03.2014**

**Time: 2 Hours**

**ANSWER ALL EIGHT QUESTIONS.**

**ANSWER EACH PART IN SEPARATE ANSWER BOOKS.**

**PART A**

**1.**

- 1.1 List 5 service models of clinical laboratory and describe each (50 marks)
- 1.2 Briefly describe the physical design of a clinical laboratory (30 marks)
- 1.3 Write down the advantages of keeping inventory in a clinical laboratory (20 marks)

**2.** The QC data obtained from the clinical laboratory is given below

Instrument: X

Lot No. 12345

Units: U/L

Test: Creatine Kinase

Control Values (Abnormal Control) are: 285, 290, 292, 320, 325, 315, 327, 340, 342, 339, 335, 323, 315, 410, 405.

(Mean 330.87 U/L and Standard deviation 35.92)

- 2.1 Draw an appropriate QC chart for the above data (30 marks)
- 2.2 Identify the type of error most likely associated with the control rule violation and explain (30 marks)
- 2.3 Calculate the CVR of the above laboratory and comment it. (Assume that the peer group CV is 4.0% ) (40 marks)

3. Write short notes on
- 3.1 Internal quality control of a chemical laboratory (40 marks)
  - 3.2 Duties of a quality control officer (30 marks)
  - 3.3 Good practices of storing chemicals (30 marks)

- 4.
- 4.1 List three human health risks associated with handling of laboratory animals (10 marks)
  - 4.2 Write down the different ways of animal inoculation and describe each (50 marks)
  - 4.3 Briefly describe how to maintain the standardization of animal welfare (40 marks)

### **PART B**

- 5.
- 5.1 Define the term “Budget” (20 Marks)
  - 5.2 List out the advantages and disadvantages of budgetary control system. (40 Marks)
  - 5.3 There are several types of budgets prepared by the organizations. Briefly describe them. (40 Marks)
- 6 A company has prepared the design for a new product. It can either sell the design, for Rs.100000, or attempt to develop the design in to a marketable product at a cost of Rs.150000. If the company decides to develop the product, the chances of success are 0.7. If the attempt fails the design can only be sold for Rs 20000. If the attempt succeeds the business has the choice of either selling the design and develop the product for Rs180000 or marketing the product. If the product is marketed then there is a 0.6 probability that the product will generate a cash inflow of Rs 800000 and a 0.4 probability that it will generate a cash outflow of Rs (100000). Both figures exclude items previously mentioned.
- 6.1 Draw a decision tree and advice management as to their best course of action. (80 Marks)
  - 6.2 List out the internal source of finance and external source of finance. (20 Marks)

- 7 “A system is a set of interacting or interdependent components forming an integrated whole or a set of elements”
- 7.1 Explain major components of information system. (30 Marks)
  - 7.2 Distinguish closed system and open system with examples. (30 Marks)
  - 7.3 List out advantages and disadvantages of Computer Information System. (40 Marks)
- 8 “ Managers need certain skills to perform the duties and activities associated with being a manager”
- 8.1 Briefly explain the managerial roles identified by HenryMitzberg. (40 Marks)
  - 8.2 What are the skills needed at different levels of management in an organization? (20 Marks)
  - 8.3 Suggest some ways to improve your ‘Time Management’ skills. (40 Marks)