



**UNIVERSITY OF JAFFNA, SRI LANKA**  
**FOURTH YEAR SECOND SEMESTER EXAMINATION IN**  
**B.Sc. (HONS) IN MEDICAL LABORATORY SCIENCES- 2019**

**MLSEP 4241 EPIDEMIOLOGY**

**Date: 30.06.2021**

**Time: 1 Hour**

**ANSWER ALL FOUR QUESTIONS.**

1. The WHO STEPS Survey (2015) reported that 7.4 % of the population in Sri Lanka has raised blood sugar. The National Multisectoral Action Plan for the Prevention and Control of Non- Communicable diseases include a target to halt the rise of diabetes.
  - 1.1. List four (04) data sources used in the routine surveillance of non- communicable diseases in Sri Lanka. (20 Marks)
  - 1.2 List three (03) limitations of the NCD surveillance system in Sri Lanka. (30 Marks)
  - 1.3 Explain the importance of the WHO STEPS Survey for NCD surveillance in resource- poor settings. (20 Marks)
  - 1.4 Discuss the importance of laboratory surveillance in the prevention and control of diabetes mellitus. (30 Marks)
  
2. The following data are taken from a study done to investigate the relationship between serum cholesterol and ischaemic heart disease. A total of 400 persons were studied, of whom 100 had ischaemic heart disease and 175 had high serum cholesterol levels. Of the 300 controls 100 had high serum cholesterol levels.
  - 2.1 What is the type of study done? (20 Marks)
  - 2.2. Present the above data in a 2 x 2 table. (40 Marks)
  - 2.3. Name the statistical test/s you would use to decide whether there is an association between ischemic heart disease and serum cholesterol level. (20 Marks)
  - 2.4. How could you assess the risk of high serum cholesterol on ischemic heart disease? (20 Marks)
  
3. Laboratory surveillance is important for communicable disease control programs.
  - 3.1. Briefly describe the possible ways the laboratories can support the communicable disease control before an out break. (30 Marks)
  - 3.2. "Monitoring the endemic trends' is one of the roles of laboratories in communicable disease control. Please describe the above statement. (40 Marks)
  - 3.3 List three (03) possible ways a laboratory can support disease prevention. (30 Marks)

4. Write notes on

4.1 Natural history of a disease

(25 Marks)

4.2 Case definition of notifiable diseases

(25 Marks)

4.3 Characteristics of a good screening test

(25 Marks)

4.4 Sentinel site surveillance

(25 Marks)

