UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
FOURTH YEAR SECOND SEMESTER EXAMINATION IN BScHons (MLS) – 2021
MLSEP 4241 EPIDEMIOLOGY

Date: 29.07.2023   Time: 1 hour

1. Define the following terms and explain with an example:
   1.1 Numerator   (20 marks)
   1.2 Denominator   (20 marks)
   1.3 Ratio   (20 marks)
   1.4 Proportion   (20 marks)
   1.5 Rate   (20 marks)

2. Over 200 dengue cases were reported from Jaffna District in July 2023 to the Epidemiology Unit Sri Lanka.
   2.1 Name three (03) other data sources to confirm this information.   (15 marks)
   2.2 Describe the ways to get this information from the sources mentioned in 2.1.
                                                                                (35 marks)
   2.3 Discuss the importance of surveillance for dengue control.   (50 marks)

3. In a cross-sectional analytical study among 1500 people to identify the risk factors of MI, it was found that out of 850 males, 85 had MI and 20 females had MI.

   3.1 Present this data in a 2x2 table.   (25 marks)
   3.2 Calculate the prevalence of MI among males and females.   (25 marks)
   3.3 Calculate the prevalence ratio and interpret it.   (50 marks)

4. In 2022, Sri Lanka had an estimated midyear population of 21,830,000. The sex ratio of the total population was 0.974. The crude birth rate for Sri Lanka in 2022 was 15.43 births per 1000 population and the crude death rate for Sri Lanka in 2022 was 6.82 per 1000 population. In 2022 the outward migration was 234,500 and the inward migration was 158,900. Based on the information provided, calculate the following:

   4.1 The male-female population in Sri Lanka in the year 2022.   (20 marks)
   4.2 Proportion of males in Sri Lanka in the year 2022.   (15 marks)
   4.3 Total number of births in Sri Lanka   (20 marks)
   4.4 Total number of deaths in Sri Lanka   (20 marks)
   4.5 Total increase in the population   (25 marks)