THIRD EXAMINATION FOR MEDICAL DEGREES PART II – APRIL 2019
COMMUNITY MEDICINE PAPER I

Duration : 3 hours

PART A

1.

1.1 Hemoglobin levels of a sample of pregnant mothers living in Akmeemana MOH area were taken to estimate the average. A sample of 100 subjects were investigated and the mean was 80 mg/dL and the standard deviation was 10 mg/dL.

1.1.1 Calculate the Standard error of the mean Hemoglobin level of this sample (10 marks)

1.1.2 Calculate 95% Confidence Level of the population mean of the variable investigated (30 marks)

1.2 A study was conducted using a sample of 100 men to see whether there is a relationship between stress level and HDL level. Results are given below.

		HDL level	
		Low	High
Stress level	**High**	40	20
	Low	10	30

1.2.1 State null and alternative hypotheses (10 marks)

1.2.2 Calculate expected values for the observed values (20 marks)

1.2.3 Test the null hypothesis at 5% level (20 marks)
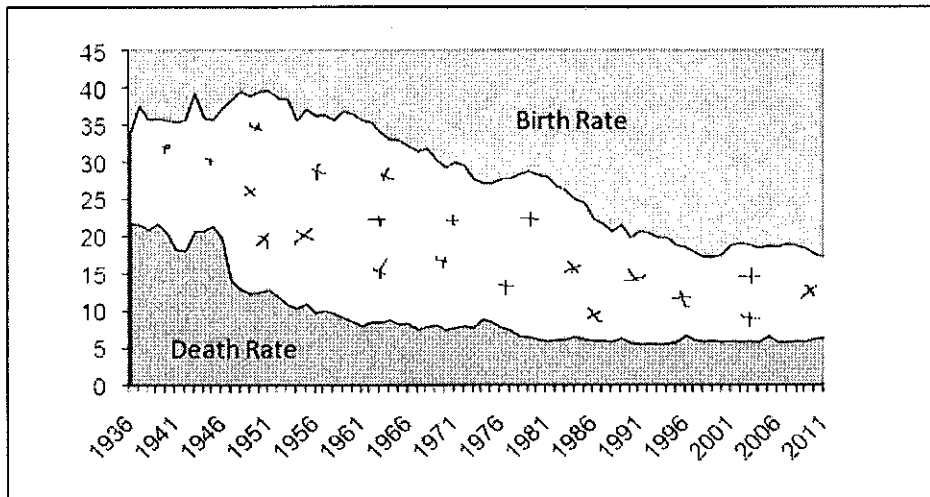
1.2.4 Write your conclusion (10 marks)

PART B

2.

2.1 .1 "Occupational health problems are common among nurses in Sri Lanka". Discuss the above statement. (25 m arks)

2.1.2 How would you prevent the occupational health problems of nurses in Sri Lanka? (25 marks)

2.2 "Low birth weight rate of Sri Lanka is a measure of maternal and child health care of the country". Discuss the above statement. (50 marks)

PART C

3. A case control study was conducted to find the association between smoking and myocardial infarction. A total of 2367 cases and controls were selected and cigarette smoking for past one year was assessed. It was found that 471 out of 1098 cases and 330 out of 1269 controls had a smoking history.

3.1 Draw the appropriate 2 X 2 table for exposure and disease status using above data. **(30 marks)**

3.2 Calculate the measure of attributable risk percent of myocardial infarction in Cigarette smokers. **(40 marks)**

3.3 Explain the findings. **(30 marks)**

PART D

4.1 Following is the demographic transition cycle of Sri Lanka

4.1.1 Describe the demographic transition cycle commenting on the birth rate and the death rate observed in the above graph **(20 marks)**

4.1.2 What is the area that is marked with crosses **(10 marks)**

4.1.3 What are the factors that have affected for the observed changes in births and death rates of the country **(20 marks)**

4.2 As the newly appointed Medical superintendent (MS) of a Base Hospital, you have identified that current hospital waste management is poorly managed. Discuss how you are going to improve healthcare waste management system in the hospital. **(50 marks)**

PART E

5. Mr. Fernando is a 70-year-old retired office worker. During his routine health check the medical officer decide to assess his nutritional status to identify possible nutritional problems.

5.1 List **three** common nutritional problems you are likely to find in this person? **(10 marks)**

5.2 Outline the factors that could have affected his current nutritional status? **(40 marks)**

5.3 Briefly describe how you would design a meal plan for this patient. **(50 marks)**