

UNIVERSITY OF RUHUNA
FACULTY OF MEDICINE



THIRD EXAMINATION FOR MEDICAL DEGREES PART II, 12TH SEPTEMBER 2011
COMMUNITY MEDICINE PAPER I

Answer **ALL FIVE** questions
Answer each part in a **SEPARATE** book.

Time : 09.00am – 12noon
Duration: Three Hours

Part A

- 1.
- 1.1 Describe the occupational health problems of tea factory workers in Sri Lanka. (50 marks)
- 1.2
- 1.2.1 What are the 3 'E's of prevention? (15 marks)
- 1.2.2 Describe how the 3 'E's can be adapted to control mosquito-borne diseases in Bope-Poddala area giving examples. (35 marks)

Part B

- 2.
- 2.1 'Adolescence is a pivotal stage in life cycle.' Comment on the above statement describing the importance of having good nutrition during adolescence. (40 marks)
- 2.2 How do recommendations for weight gain during pregnancy relate with pre-pregnancy weight and present BMI? (40 marks)
- 2.3 List six (6) factors causing Intra Uterine Growth Retardation in less developed countries. (20 marks)

Part C

- 3.
- 3.1 Define the term epidemiology. (10 marks)
- 3.2 Road Traffic Accidents for the past five years have increased in a Medical Officer of Health (MOH) area causing increased deaths and disabilities. Describe the possible causes and preventive activities you would propose indicating the different levels of prevention. (60 marks)
- 3.3 A case-control study carried out to assess the relationship between obesity and consumption of fast food produced the following results.

Odds Ratio (OR) = 3.1
95% confidence interval of OR is 2.0 – 5.4

How would you interpret the above results? (30 marks)

Part D

- 4.
- 4.1 A study was conducted in Galle on a sample of 1200 adults to assess the factors associated with hypertension. For each individual, age, sex, height, weight, systolic and diastolic blood pressure, social class and income were recorded. Sample subjects were divided into two income groups. Indicate giving reasons the best test you would use in the statistical analysis of the followings.
- 4.1.1 To compare the mean systolic blood pressure of men and women. (20 marks)
- 4.1.2 To study the association between diastolic blood pressure and weight. (20 marks)
- 4.1.3 To find the association between social class and the presence or absence of hypertension. (20 marks)
- 4.1.4 To find the association between BMI and systolic blood pressure (20 marks)
- 4.2 Physical inactivity is a major health behavior issue among middle aged people in Sri Lanka.
- 4.2.1 List **four (4)** factors associated with this public health problem. (10 marks)
- 4.2.2 List **two (2)** health promotion strategies that can be used to control physical inactivity in this population group. (10 marks)

Part E

- 5.
- 5.1 Following are the demographic data of year 2010 in a Medical Officer of Health (MOH) area in Nuweraeliya district.

Age (Years)	Mid Year Population	Number of females	Number of births	Number of deaths
≤ 1	1, 000	480	0	100
> 1 - 14	10, 000	4, 520	10	20
15 - 19	20, 000	14, 000	900	100
20 - 49	50, 000	20, 000	4, 000	60
50 - 64	39, 000	20, 000	90	200
> 64	20, 000	12, 000	0	920
Total	140, 000	71, 000	5, 000	1, 400

- 5.1.1 Calculate the Crude Birth Rate (CBR), Crude Death Rate (CDR) and Infant Mortality Rate (IMR) of the area. (15 marks)
- 5.1.2 Compare the above CBR and CDR values with the national values of Sri Lanka. (10 marks)
- 5.1.3 How would you use the demographic information given above in planning health of the people living in this MOH area. (25 marks)
- 5.2
- 5.2.1 What is Early Childhood Care and Development (ECCD)? (10 marks)
- 5.2.2 As a Medical Officer of Health, how would you ensure ECCD activities in your MOH area? (40 marks)