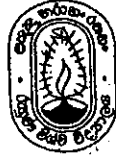


UNIVERSITY OF RUHUNA
FACULTY OF MEDICINE



THIRD EXAMINATION FOR MEDICAL DEGREES PART II, 25TH AUGUST 2009
COMMUNITY MEDICINE PAPER I

Answer **ALL FIVE** questions

Answer each part in a **SEPARATE** book. Begin each answer in a **New Page**.

Duration: Three Hours

Part A

1.

1.1 It has been observed that there has been an increased spread of infections among internally displaced persons (IDP) at Killinochchi camps.

1.1.1 Give reasons for the observations made. (25 marks)

1.1.2 Outline the steps necessary to prevent the spread of infectious diseases. (25 marks)

1.2 A 30 years old mother comes for the first visit during the 3rd month of her third pregnancy to a maternal and child health clinic in Bope-Poddala MOH division. Write notes on the following explaining the usefulness.

1.2.1 Measurements, clinical examinations and investigations to be carried out on her. (25 marks)

1.2.2 Follow up activities needed during her present pregnancy. (25 marks)

Part B

2

2.1 These are the Age Specific Fertility Rates (ASFR) and Total Fertility Rates (TFR) of Sri Lanka in year 1963 and 2000.

Age Group	1963	2000
15 - 19	52	27
20 - 24	228	83
25 - 29	278	118
30 - 34	240	98
35 - 39	157	40
40 - 44	46	8
45 - 49	7	1
TFR	5	1.9

Annual Health Bulletin 2002

2.1.1 Compare the trend in the fertility rates in Sri Lanka during this 40 year period by drawing a graph using ASFR of the two years. (20 marks)

2.1.2 What factors could have affected this change in fertility levels in Sri Lanka and what are the advantages and disadvantages of this change? (30 marks)

2.2

2.2.1 Describe the major dietary modifications recommended for patients with cardiovascular disease? (25 marks)

2.2.2 Explain how you would manage eating disorders in adolescents? (25 marks)

- 3.**
- 3.1** Kanthi is a 20 year old girl working in a garment factory in Moratuwa. She came home to Galle for a brief holiday last month and suddenly developed high fever, severe myalgia and headache. She took treatment from a general practitioner, but four days later she was admitted to hospital with bleeding gums and haematemesis.
- 3.1.1 Explain the probable diagnosis considering the recent epidemiological status of the country. (10 marks)
- 3.1.2 Briefly describe the steps that can be taken to prevent spread of such illnesses among the population by
- 3.1.2.1 health care personnel. (20 marks)
- 3.1.2.2 individuals. (10 marks)
- 3.1.2.3 community. (10 marks)
- 3.2** 3.2.1 Describe the adverse health effects of occupational noise? (20 marks)
- 3.2.2 Briefly describe the preventive measures that can be adopted to overcome these effects. (30 marks)

Part D

- 4**
- 4.1** It was hypothesized that pertussis immunization causes severe encephalopathy with long term permanent brain damage. A study was designed to test this hypothesis. Children admitted with such neurological illnesses were selected and each case was matched with two controls for age and sex. Their past histories of immunization and other relevant factors were obtained from both groups. Out of 904 cases of encephalopathy, 30 (3.3%) had received Pertussis vaccine within 7 days of the illness. There were 23 children among the control group who had been immunized within 7 days.
- 4.1.1 Identify this study type and find the risk of developing encephalopathy after immunization. (30 marks)
- 4.1.2 Mention a research methodology to confirm the long term permanent brain damage after 10 years of vaccination. (20 marks)
- 4.2** Cases of Swine Influenza new sub type, A/H1N1 has been identified in Sri Lanka. Describe briefly how you would arrive at the following epidemiological findings.
- 4.2.1 Distribution and risk factors of the disease (30 marks)
- 4.2.2 Effectiveness of the intervention (20 marks)

Part E

- 5.**
- 5.1** Write short notes on the following
- 5.1.1 Stratified sampling (15 marks)
- 5.1.2 Two measures of dispersion of a data set (20 marks)
- 5.1.3 Correlation coefficient (15 marks)
- 5.2** A study was conducted to see whether there is an association between gender and childhood sexual abuse experience in adolescents. Self-report, anonymous questionnaire was used to collect data. Forty two percent(42%) of males and 30% of female participants reported having been sexually abused in the past. Two hundred males(200) and 100 females aged 15-19 years participated in the study.
- 5.2.1 Describe the study design used in this research and state the null and alternate hypothesis. (25 marks)
- 5.2.2 Mention the significance tests that can be used for this analysis and test your hypothesis at 0.01 level. (25 marks)

Critical values of chi square

df	0.05	0.01
1	3.84	6.64
2	5.99	9.21
3	7.82	11.34
4	9.49	13.28
5	11.07	15.09