

POSTGRADUATE INSTITUTE OF MEDICINE  
UNIVERSITY OF COLOMBO

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Thilaka

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY)  
EXAMINATION (NEW SYLLABUS) – NOVEMBER 2015

Date:- 26<sup>th</sup> November 2015

Time:- 9.00 a.m. – 12.00 noon

PAPER I

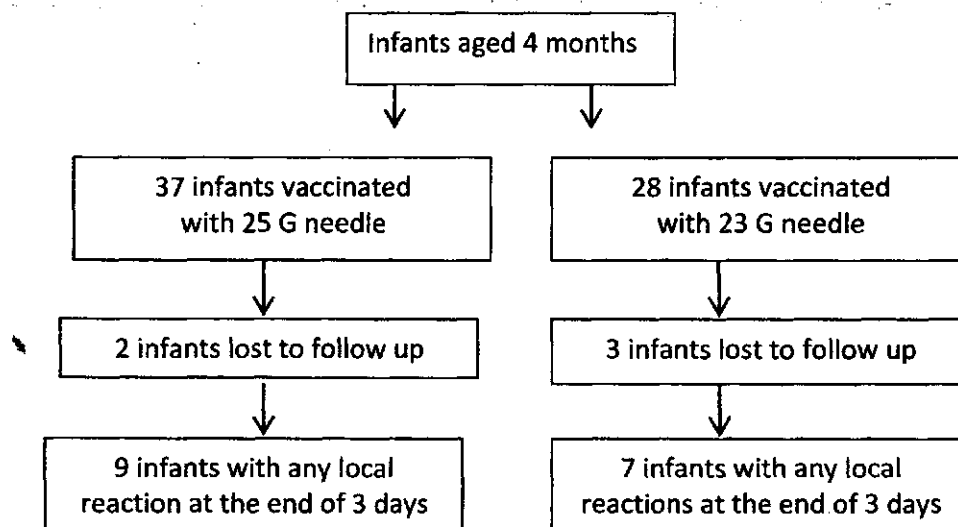
Community Medicine candidates should answer **all six (06) questions in Parts A and B**

Community Dentistry candidates should answer **all six (06) questions in Parts A and C**

Each question to be answered in a separate book.

PART A

1. Given below is the study design followed to compare the rates of local reactions associated with two needle sizes (25 G and 23 G) used to administer routine immunization to infants aged 4 months.



- 1.1 State the eligibility criteria for the study population of the above study. (15 marks)
- 1.2 Giving reasons indicate the best method that should be used to select the two groups. (15 marks)
- 1.3 Discuss the precautions that should be taken during outcome assessment to minimize bias in this study. (30 marks)
- 1.4 Interpret the results based on hypothesis testing. (40 marks)

Contd.../2-

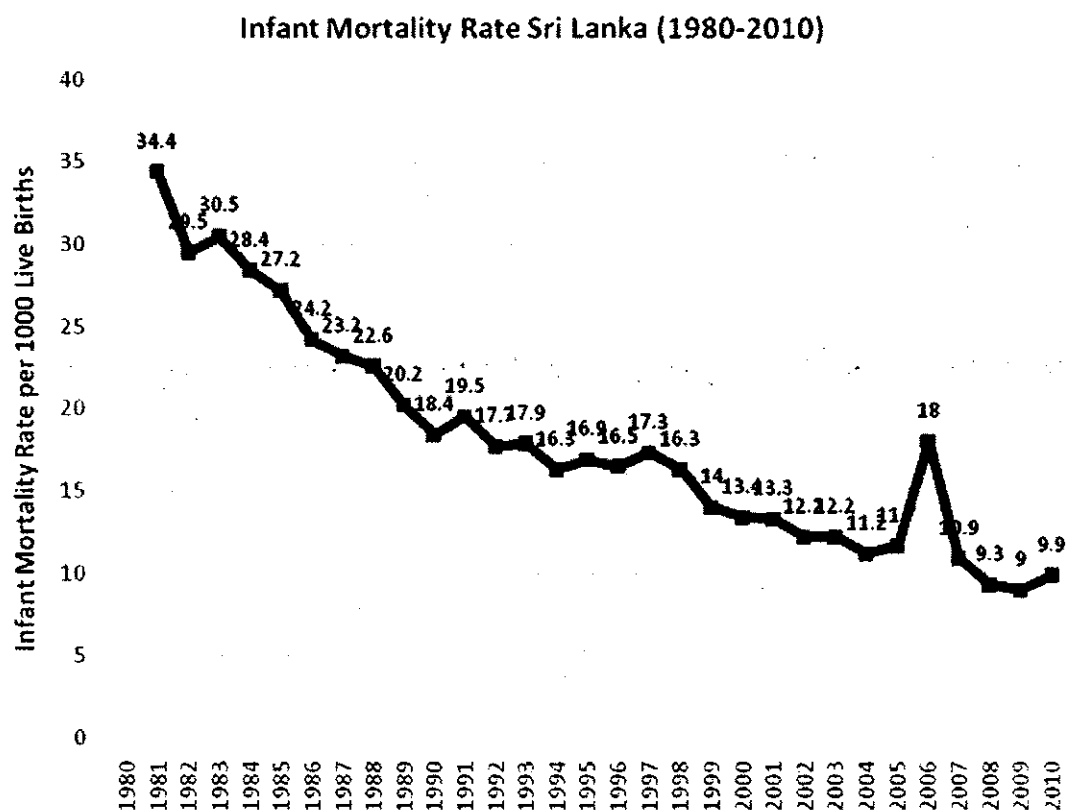
2. The last population census of Sri Lanka was held in 2012.
- 2.1 State the two (2) types of census enumeration. (10 marks)
- 2.2 List the steps that were followed in the pre-census period to ensure full coverage. (20 marks)
- 2.3 State the measures that can be taken by Sri Lanka to utilize the demographic bonus effectively. (30 marks)
- 2.4 'Census data on the elderly population is essential for health planners.'  
Comment on this statement. (40 marks)
3. A researcher is planning to conduct a cohort study to determine the risk of sedentary life style on the incidence of type 2 diabetes.
- 3.1 Explain three (3) ways that could introduce classification bias in this study. (15 marks)
- 3.2 State three (3) methods in which the effect of confounding can be controlled, giving one example for each method. (15 marks)
- 3.3 Comment on the implications of 'loss-to-follow-up' in this study. (15 marks)
- 3.4 List the ethical issues related to this study. (20 marks)
- 3.5 Explain how the findings of the above study could be analyzed and interpreted. (35 marks)

Contd.../3-

## PART B

4.

4.1 The following graph shows the infant mortality rate in Sri Lanka for the period 1980-2010.



*Source: Registrar General's Department*

4.1.1 Describe the graph giving possible reasons for the trend observed. (25 marks)

4.1.2 Explain how the present field infant death investigation mechanism can be improved. (20 marks)

4.2 Early Childhood Care and Development (ECCD) leads to a healthy nation.

4.2.1 List five (5) psychological needs that should be met for optimal child development. (15 marks)

4.2.2 Based on the principles of early childhood stimulation, describe three (3) activities recommended to be carried out by parents. (15 marks)

4.2.3 Describe the opportunities available in the current child health programme for assessing child development. (25 marks)

Contd.../4-

5.

5.1 Describe common ergonomic problems seen in garment factories. (30 marks)

5.2 List the interventions you propose to address the problems mentioned in 5.1. (20 marks)

5.3 'Workplace ergonomic interventions are cost effective.' Discuss this statement. (50 marks)

6.

6.1 In a study conducted among diabetics, the mean HbA1C level was 7.0 (n=100, SD=1.2) in males and 8.3 (n=100, SD=1.7) in females.

6.1.1 Calculate the 95% confidence intervals for the HbA1C levels for males and females. (30 marks)

6.1.2 Interpret the results based on the confidence intervals. (20 marks)

6.2 An area in an MOH division in the Central Province has been affected by frequent landslides due to prevailing heavy rains. Approximately 1000 persons have been moved to a nearby school for safety reasons. These people are likely to remain in this safe location for the next 3 weeks.

6.2.1 Describe the immediate requirements that should be provided within the first 24 hours of displacement. (30 marks)

6.2.2 List the partners with whom the health team should work together to provide the required services. (20 marks)

Contd.../5-

**PART C**

7.

7.1 List the criteria to define a public health problem. (20 marks)

7.2 Based on the criteria mentioned in 7.1 discuss whether common oral diseases are public health problems. (80 marks)

8.

8.1 Mention the role of fluoride in enamel remineralization. (20 marks)

8.2 Explain giving reasons the factors that you would consider in determining an appropriate fluoride strategy for preventing dental caries. (80 marks)

9. National Oral Health Surveys have been conducted in Sri Lanka since 1984.

9.1 Explain the importance of these data. (40 marks)

9.2 What are the limitations of these types of surveys. (20 marks)

9.3 Explain the implications of the findings of the past three surveys for delivery of oral health care in Sri Lanka. (40 marks)

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**MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY)  
EXAMINATION (NEW SYLLABUS) – NOVEMBER 2015**

**Date:-** 26<sup>th</sup> November 2015

**Time:-** 1.00 p.m. – 4.00 p.m.

**PAPER II**

**Answer all six (06) questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1 Disability is an emerging public health problem in Sri Lanka.  
Discuss the above statement. (40 marks)
  - 1.2 As a Medical Officer of Health, you have been asked to design a community based programme to improve the wellbeing of persons with disabilities in your area.
    - 1.2.1 List five (5) key stakeholders that could be involved in the above program (10 marks)
    - 1.2.2 Describe the main activities that should be included in the above programme. (30 marks)
    - 1.2.3 Describe the factors related to care-giver burden. (20 marks)
2. Deaths due to suicide in Sri Lanka has declined during the past few decades. However, reported attempted suicide among young people shows an increasing trend.
  - 2.1 List five (5) underlying causes for attempted suicide among young people. (10 marks)
  - 2.2 Describe the factors that could prevent (protective factors) attempted suicide. (30 marks)
  - 2.3 As a Medical Officer of Health (MOH), describe the key activities to reduce attempted suicide in your area. (50 marks)
  - 2.4 List five (5) challenges that you would encounter in implementing the above programme. (10 marks)

Contd.../2-

3.

3.1 State the three (3) changes incorporated in to the National Immunization Schedule during 2015. (15 marks)

3.2 Describe the rationale for each of these changes. (45 marks)

3.3 A Medical Officer of Health (MOH) has identified 15 vaccination site abscesses during a 2-month period in the Adverse Events Following Immunization (AEFI) Register maintained at the MOH office.

Describe how the MOH should investigate this event. (40 marks)

4.

4.1 As a district level Medical Officer, Non Communicable Diseases (MO/NCD), you have planned to conduct a programme to promote healthy diet among school children in your district.

4.1.1 List five (5) key stakeholders who could be involved in the above programme. (10 marks)

4.1.2 Discuss the strengths and challenges in the multisectoral approach in conducting programmes to promote healthy diet among school children at the district level (40 marks)

4.2

4.2.1 List the services available in Healthy Life Style Centres established by the Ministry of Health. (15 marks)

4.2.2 Male participation at Healthy Life Style Centres is unsatisfactory. Discuss the strategies that could be adopted to increase male participation at Healthy Life Style Centres. (35 marks)

5. The Director General of Health Services has been requested by the Cabinet to establish a 'Mens Health Programme' for the country. The new programme has been identified within the purview of the existing Family Health Programme.

5.1 Describe the steps that you would follow to develop this national programme. (40 marks)

5.2 Giving reasons for each, mention 4 indicators that you would suggest to assess the impact of this national programme. (30 marks)

5.3 Discuss the advantages and disadvantages in placing this programme within the existing Family Health Programme. (30 marks)

Contd.../3-

6.

- 6.1 List five (5) different approaches that could be used in promoting health at divisional level. (20 marks)
- 6.2 Describe how the Medical Officer of Health (MOH) could address the issue of teenage pregnancy using two of the above approaches. (40 marks)
- 6.3 Explain how community participation could be strengthened to improve Maternal and Child Health clinic facilities and services. (30 marks)
- 6.4 List five possible challenges in strengthening community participation. (10 marks)