

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)
SEPTEMBER 2015

Date : 16th September 2015

Time : 1.00 p.m. – 4.00 p.m.

Answer all five questions

Answer each question in a separate book.

PART A

1. Socio economic status plays a crucial role in determining oral health status of people.
 - 1.1. Explain the term socio economic status. (20 marks)
 - 1.2. Briefly explain how socio economic status is influencing oral health status of people. (30 marks)
 - 1.3. As the Regional Dental Surgeon outline a plan of action that you would prepare to promote oral health of a group of culturally diverse and socially disadvantaged preschool children. (50 marks)

2. Comment on the following statements :
 - 2.1. Inability to provide integrated preventive, curative and follow up of oral health care could result in failures of the national programme for providing oral health care in pregnancy. (50 marks)
 - 2.2. Nearly 70% of oral cancer patients in Sri Lanka seek oral health care at late stages of their disease. (50 marks)

3. Periodontal disease is known to be associated with diabetes.
- 3.1. List four (04) possible reasons for this association. (20 marks)
- 3.2. Critically comment on periodontal disease as a complication of diabetes in Sri Lankan context. (30 marks)
- 1.3. The Regional Director of Health Services of your region requests you as the Community Dental Surgeon to conduct an oral health programme for patients attending a diabetic clinic. Describe the steps involved in conducting the programme. (50 marks)

PART B

4. Data related to dengue fever in two Medical Officer of Health areas were reviewed to plan future action for prevention and control of dengue fever. The number of new cases of dengue fever reported for the year 2014 in MOH area 'A' and 'MOH area B' was 120 and 150 respectively. The estimated population of these two MOH areas in the same year was 60,000 and 37,500 respectively.
- 4.1. Calculate the measure of disease frequency that can be obtained using the above data for the two MOH areas separately. (20 marks)
- 4.2. Calculate the risk estimate and interpret the results. (30 marks)
- 4.3. List four (04) additional variables that you would seek in order to describe the epidemiology of dengue fever. (20 marks)
- 4.4. On further inquiry, it was found that there were two deaths in each MOH area due to dengue fever in the year 2014. Calculate the relevant mortality indicators and describe the usefulness of each mortality indicator. (30 marks)

5.

5.1. Results of a case control study that investigated the impact of improved sanitation on diarrhoea are summarized in the table below.

Table : 1 - Distribution of latrine ownership in the house holds of cases of diarrhoea and controls.

Latrine ownership	No. of Cases(%)	No.of Controls(%)
Yes	292 (36)	347 (43)
No	511 (64)	463 (57)
Total	803 (100)	810 (100)

Odds ratio=0.76 ; 95% Confidence Interval (CI) = 0.62-0.93; $\chi^2= 6.80$, $P =0.009$

Interpret these results.

(40 marks)

5.2. Write the most appropriate statistical test of significance for the following situations. giving reasons for each of your answers.

5.2.1. A household survey in two districts with 400 preschool children in each district was conducted to assess prevalence of anaemia. The results revealed that the prevalence of anaemia among preschool children in one district was 23% compared to 18% in the other district. Researcher wants to know whether the prevalence is significantly different between the two districts. (20 marks)

5.2.2. A researcher needs to investigate whether a dietary intervention is effective in reducing diastolic blood pressure. A low salt diet was prescribed as a dietary intervention for a sample of 25 patients with high blood pressure for six months. Diastolic blood pressure was measured at the baseline and at the end of the intervention. (20 marks)

5.2.3. A researcher plans to test whether the height of a child at completion of 5th year is related to maternal height in a sample of 500 mother-baby pairs. (20 marks)