

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MSc(COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**OCTOBER, 1990**

Date : 22<sup>nd</sup> October, 1990

Time :1.30p.m. - 4.30p.m.

**Answer all five questions.**  
**Each art should be answered in a separate book.**

**PART A**

1.
  - 1.1 Write a research proposal to determine the prevalence of decayed, missing and filled teeth (DMF) in the district of Kandy. (70 marks)
  - 1.2 The prevalence rate obtained from this study may or may not be indicative of the prevalence in other districts in Sri Lanka – Discuss. (30 marks)
2. Describe the possible clinical manifestations due to the following:
  - 2.1 Excess of Fluoride (25 marks)
  - 2.2 Deficiency of Iodine (25 marks)
  - 2.3 Deficiency of Vitamin A (25 marks)
  - 2.4 Deficiency of Riboflavine (25 marks)
3. Write notes on the differences between,
  - 3.1 Incidence and Prevalence of a disease (30 marks)
  - 3.2 Incubation and Communicable periods (30 marks)
  - 3.3 Cross-sectional and longitudinal studies (40 marks)

**PART B**

4. Discuss the short comings of Hospital Dental Services in Sri Lanka. (100 marks)
5. Describe the epidemiology of Periodontal disease in Sri Lanka. (100 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
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**Msc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1991**

Date:16<sup>th</sup> September, 1991

Time:9.00 a.m. - 12.00 noon

**Answer all five questions.**  
**Each part should be answered in a separate book.**

**PART A**

1. Outline a research proposal to determine the prevalence of oral leukoplakia in Sri Lanka. (100 marks)
2. Since the year 1945, the crude birth rate has fallen steadily but slowly as compared to the crude death rate which has fallen rapidly. The expectation of life at birth (life span), has steadily increased. Discuss the possible effects that arise from this situation. (100 marks)
3. Write notes on the following:
  - 3.1. Differences between Incubation and Communicable Periods (30 marks)
  - 3.2. List the precautions that should be taken by a dental surgeon in clinical practice to prevent the transmission of "Acquired immune Deficiency Syndrome" (AIDS). (40marks)
  - 3.3. List the uses of epidemiology (30 marks)

**PART B**

4. Discuss the case for and against increasing the number of dental surgeons in Sri Lanka. (100 marks)
5. Discuss the limitations of curative dentistry in the light of prevailing oral disease patterns in Sri Lanka. (100 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
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**MSC (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1992**

Date:-15<sup>th</sup> September, 1992

Time: 2.00 p.m.- 5.00 p.m.

**Answer all five questions.**  
**Each part should be answer in a separate book.**

**PART A**

1. Discuss the possibilities for the more effective use of dental auxiliaries in Sri Lanka. (100 marks)
2. Discuss the potential impact of Economic Policies on Community Health. (100 marks)

**PART B**

1. Write an essay on "The. Use and Abuse of Fluorides". (100 marks)
2. Give the outline of a talk you would give to a group of secondary school children on "Dental Caries". (100 marks)
5. Describe the role of a Dental Surgeon in the:
  - 5.1. Prevention of antibiotic resistance (50 marks)
  - 5.2. Early detection of carcinomas of the mouth. (50 marks)

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**MSC (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1993**

Date :15<sup>th</sup> September, 1993

Time : 2.00 p.m. - 5.00 p.m.

**Answer all five questions.**

**Each part should be answered in a separate book.**

**PART A**

1. Discuss the social and environmental problems which may occur and its effect on health during industrialization in a developing country. (100 marks)
2. Describe how you may study the relationship between betel chewing and oral cancer. (100 marks)
3.
  - 3.1 List the oral manifestation of systemic diseases. (50 marks)
  - 3.2 Define the following,
    - 3.2.1. Crude birth rate
    - 3.2.2. Infant mortality rate
    - 3.2.3. Perinatal mortality rate.
    - 3.2.4. Age specific mortality rate
    - 3.2.5. General fertility rate (50 marks)

**PART B**

4. Discuss the reasons for the shortcomings in professional ethics among Sri Lankan doctors and dentists, and possible remedies. (100 marks)
3. Discuss the limitations of school dental services in Sri Lanka. (100 marks)

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**UNIVERSITY OF COLOMBO**

**MSC (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1994**

Date :- 20<sup>th</sup> September, 1994

Time:- 2.00 p.m. - 5.00 p.m.

**Answer all five questions.**  
**Each part should be answered in a separate book**

**PART A**

1. Discuss the effects of unemployment on community health (100 marks)
2. Write an account of the non surgical management of a patient with chronic periodontal disease (100 marks)
3. Discuss the possible reforms that may improve the quality and effectiveness of channel consultation practice in Sri Lanka (100 marks)

**PART B**

4. Describe giving reasons, how you would design and carry out a program for the prevention of oral carcinoma in a health area (100 marks)
5. Write notes on the following,
  - 5.1. Modes of spread of the Human Immuno Deficiency Virus(HIV) in a community (35 marks)
  - 5.2. "Prevention is better than cure" (35 marks)
  - 5.3. Reasons for the increase in life expectancy and the proportion of the elderly in Sri Lanka (30 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
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**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1995**

Date: 12<sup>th</sup> September 1995

Time: 2.00 p.m. - 5.00 p.m.

**Answer ALL FIVE questions**  
**Each part should be answered in a separate book**

**PART A**

1. Write an account of the relationship between poverty and disease (100 Marks)
2. Discuss the potential for the wider and more effective use of auxiliary personnel for oral health promotion in Sri Lanka (100 Marks)
3. Critically evaluate the contribution you have made to the community in the capacity of a dental surgeon so far in your career.

**PART B**

4. Oral cancer is one of the commonest cancers in Sri Lanka. Discuss the reasons for this situation and outline steps that you recommend to bring down the incidence of oral cancer in Sri Lanka. (100 marks)
5. Write short notes on:
  - 5.1 Precautions that should be taken by a Dental Surgeon in the prevention of the spread of Human Immunodeficiency Virus(HIV). (35 Marks)
  - 5.2 Differences between incidence and prevalence of a disease. (30 Marks)
  - 5.3 Health problems of ageing populations. (35 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1996**

Date : 10<sup>th</sup> September, 1996

Time :- 1.30 p.m. - 4.30 p.m.

**Answer all FIVE questions**  
**Each part to be answered in a separate book**

**PART A**

1. Discuss the concept of 'quality of life'. (100 marks)
2. Write an account of the epidemiology of oral cancer. (100 marks)
3. Discuss how dental services in Sri Lanka might be reorganized, so as to make best use of dental surgeons with Postgraduate qualifications in Community Dentistry. (100 marks)

**PART B**

4. Write short notes on,
  - 4.1 Importance Of finding out the socio economic background of dental patients. (35marks)
  - 4.2 Primary prevention and secondary prevention (35 marks)
  - 4.3 Modes of transmission of the Human Immunodeficiency Virus (HIV). (30 marks)
5. Describe the common systemic diseases you Would be able to identify during routine dental Practice in Sri Lanka. (100 marks)

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**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1997**

Date: 17<sup>th</sup> September 1997

Time 2.00 p.m. - 5.00 p.m.

**Answer all Five Questions.**

**Each Part should be answered in a separate book.**

**PART A**

1. Discuss the role of school dental services in Sri Lanka. (100 marks)
2.
  - 2.1. Describe the oral health problems of public health importance in the elderly in Sri Lanka. (70 marks)
  - 2.2. Suggest strategies for their prevention. (30 marks)

**PART B**

3. Discuss the features of a “healthy lifestyle” (100 marks)
4. “Oral health is an integral part of general health”  
Discuss the importance of this concept in the provision of oral health care. (100 marks)
5. Describe the developments that have transformed the practice of “Restorative dentistry” during the past 30 years. (100 marks)



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**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1998**

Date: 16<sup>th</sup> September, 1998

Time :2.00 p.m.- 5.00 p.m.

**Answer all five questions.**

**A and B should be answered in separate books.**

**PART A**

1. Describe the elements of a National programme to bring about a rapid reduction in the incidence of oral cancer in Sri Lanka. (100 marks)
2. Discuss the role of health education in the prevention and control of dental diseases. (100 marks)
3. Write down your proposal for an effective community dental service for Sri Lanka. (100 marks)

**PART B**

4. Demographers claim that the Sri Lankan population is fast ageing.
  - 4.1 Explain the above statement. (20 marks)
  - 4.2 What are the health and socioeconomic implications to the country due to the ageing of the population. (40 marks)
  - 4.3 Suggest measures to address the oral health problems in the elderly. (40 marks.)
5. Discuss the present and future role of dental auxiliaries in the delivery of oral health care in Sri Lanka. (100 marks)

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**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 1999**

Date :- 15<sup>th</sup> September, 1999

Time :- 2.00 p.m. - 5.00 p.m.

**Answer all five questions.**

**Part A and B should be answered in separate books.**

**PART A**

1. Discuss the following statements,
  - 1.1 Indoor morbidity statistics can be used to calculate incidence rates. (25 marks)
  - 1.2 Low birth weight rates are incidence rates rather than prevalence rates. (25 marks)
  - 1.3 The p-value denotes the probability of the null hypothesis being true. (25 marks)
  - 1.4 Occupational health is not a priority for Sri Lanka as the mortality due to occupational diseases is low. (25 marks)
  
2. The suicide rate in Sri Lanka is one of the highest in the world.
  - 2.1. What are the age groups that are most affected ? (10 marks)
  - 2.2. List the probable causes. (30 marks)
  - 2.3. Describe the measures that you advocate to reduce suicides. (60 marks)

**PART B**

3. Discuss the public and professional implications of dental graduates having to increasingly seek employment in the private sector. (100 marks)
4. Write a critical account of the present role and utilisation of Regional Dental Surgeons in Sri Lanka. (100 marks)
5. Explain the various reasons why "prevention is better than cure" (100 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION**  
**SEPTEMBER, 2000**

Date: - 12<sup>th</sup> September, 2000

Time :- 2.00 p.m. - 5.00 p.m.

**Answer all five questions**

**Part A and B should be answered in separate books**

**PART A**

1. What is your vision for an effective "Community Dental Service" in Sri Lanka ?  
(100 Marks)
2. Write an account of the potentially harmful effects of dental treatment  
(100 marks)
3. There have recently been pressures to replace dental therapists in Sri Lanka with dental surgeons. Discuss the arguments against such a proposal. (100 marks)

**PART B**

4. Discuss the role a dental surgeon can play in promoting the general health of his/her patients  
(100 marks)
5. The Sri Lankan population is ageing,
  - 5.1 What are the reasons for this trend? (25 marks)
  - 5.2 What are the health implications of this trend (75 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION -**  
**SEPTEMBER, 2001**

Date :- 11<sup>th</sup> September, 2001

Time :- 1.00 p.m. - 4.00 p.m.

**Answer all five questions**

**Part A and B should be answered in separate books**

**PART A**

1. Write an account of the environmental factors that affect the oral health of people living in Sri Lanka. (100 marks)
2. Discuss the role of the dental surgeon in the prevention and control of oral cancer. (100 marks)
3. Describe the activities that you would include in a programme to improve the oral health of school children in a particular district of Sri Lanka. (100 marks)

**PART B**

4. A study was conducted to determine the association between oral cancer and betel chewing. Two hundred cases and 200 controls were included in the study. Seventy five subjects among the study group and 25 among the control group gave a history of betel chewing.
  - 4.1. What is the study design ? (10 marks)
  - 4.2. Present the above data in a 2 x 2 table (20 marks)
  - 4.3. Calculate the Odds Ratio (20 marks)
  - 4.4. What inference can you draw from the above results ? (20 marks)
  - 4.5. Describe the advantages and disadvantages of this study (30 marks)
5. Write notes on the following :
  - 5.1. Standard error of the mean (25 marks)
  - 5.2. Measures of central tendency (25 marks)
  - 5.3. Levels of prevention (25 marks)
  - 5.4. Life expectancy at birth (25 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION -**  
**SEPTEMBER, 2002**

Date :- 19<sup>th</sup> September, 2002

Time :- 1.30 p.m. - 4.30 p.m.

**Answer all five questions.**

**Part A and B should be answered in separate books.**

**PART A**

1. Discuss the influence of socio-economic status on oral health. (100 marks)
2. Write an account of the health promotion activities that may improve the oral health of the population of Sri Lanka. (100 marks)
3. Write a critical account of the hospital dental service of Sri Lanka indicating how it could be reorganized to provide a better service. (100 marks)

**PART B**

4.
  - 4.1. What is health ? (40 marks)
  - 4.2. What indicators are used to assess the health status of a country ? (60 marks)
5.
  - 5.1. What are the uses of epidemiology ? (40 marks)
  - 5.2. Describe the occurrence of oral cancer in relation to the agent, host and environmental factors. (60 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
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**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION -**  
**SEPTEMBER, 2003**

Date :- 18<sup>th</sup> September, 2003

Time :- 1.30 p.m. - 4.30 p.m.

**Answer all five questions.**

**Part A and B should be answered in separate books.**

**PART A**

1. Write an essay on the value of dental ancillaries in the r Division of oral health care. (100 marks)
2. What are the aims of health education ? (20 marks)  
What information would you give the public during the course of oral health education ? (80 marks)
3. Discuss the relationship between poverty and the health (100 marks)

**PART B**

4. Describe the health and social implications of the changing demographic pattern in Sri Lanka. (100 marks)
5. "Patients by-passing smaller health institutions and overcrowding larger health institutions is an established feature in Sri Lanka".  
Comment on this statement. (100 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
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**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION -**  
**SEPTEMBER, 2004**

Date :- 16<sup>th</sup> September 2004

Time :- 1.30 p.m. - 4.30 p.m.

**Answer all five questions.**

**Answer each question in a separate book.**

**PART A**

1. Write an essay on the influence of the environment on oral health.  
(100 marks)
2. " It is impossible to provide satisfactory dental services in third world countries without using dental auxiliaries". Discuss this statement.  
(100 marks)
3. Discuss the role of diet in maintaining good oral health.  
(100 marks)

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**PART B**

4. You have been requested to design a study to determine risk factors for alcohol addiction in an MOH area.
  - 4.1 Describe your study design (50 marks)
  - 4.2 Describe briefly a study instrument that you plan to use (30 marks)
  - 4.3 Name a statistical test you would use in the analysis (20 marks)
5. 5.1 What is Odds Ratio (OR) ? (40 marks)  
  
5.2 Given below is a table, which shows the Odds Ratios for selected variables that were studied to determine the risk factors for wheezing. Indicate as to which of the variables can be considered 'as risk factors for wheezing.  
(30 marks)

**Table : Risk factors for wheezing**

<b>Variable</b>	<b>Odds Ratio</b>	<b>95 % Confidence Interval</b>
<b>Sex</b>		
Girls	0.82	0.57 - 1.17
Boys (Reference)	1.00	
<b>Education of mother (years of school)</b>		
0-7	2.07	1.00 - 4.25
8-10	1.34	0.63 - 2.86
≥11 (Reference)	1.00	
<b>Birth weight (g)</b>		
≤ 2500	2.09	1.24 – 3.53
> 2500 (Reference)	1.00	
<b>Duration of breast feeding (months)</b>		
≤ 4	1.33	0.92 – 1.91
> 4 (Reference)	1.00	
<b>Exposure to smoke at Home</b>		
Yes	1.49	1.10 – 2.16
No (Reference)	1.00	

5.3 State the reason/s for your conclusion

(30 marks)



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**UNIVERSITY OF COLOMBO**

**MSc (COMMUNITY DENTISTRY) QUALIFYING EXAMINATION -**  
**SEPTEMBER, 2005**

Date:- 22<sup>nd</sup> September, 2005

Time :- 1.30 p.m. - 4.30 p.m.

**Answer all five questions**

**Answer each question in a separate book.**

**PART A**

1. Discuss the social and behavioural factors that are associated with an increased incidence of oral disease. (100 marks)
2. Discuss the implications of changing demographic patterns in the delivery of oral health services globally. (100 marks)
3.
  - 3.1. Outline how dental services are organized in Sri Lanka. (25 marks)
  - 3.2. Discuss how the existing dental services in Sri Lanka could be reorganized to provide better services to the public. (75 marks)

**PART B**

4. The hospital mortality rate due to ischaemic heart disease in Sri Lanka has increased from 12.5 deaths per 100 000 population in 1980 to 18.6 deaths per 100 000 population in 2000.  
Discuss the possible reasons for this increase. (100 marks)
5. Write short notes on : -
  - 5.1. Relative risk. (30 marks)
  - 5.2. Literacy rate in Sri Lanka. (30 marks)
  - 5.2. Primary prevention of Human Immune Deficiency Virus infection (HIV). (40 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER, 2006**

Date:- 21<sup>st</sup> September, 2006

Time :- 1.00 p.m. - 4.00 p.m.

**Answer all five questions**

**Answer each question in a separate book.**

**PART A**

1. Discuss the role and the importance of a team approach with the use of auxillary personnel in providing better dental services in Sri Lanka. (100 marks)
2. Write an account of the factors that affect health behaviour in a population. (100 marks)
3. As a dental surgeon working in a district hospital how could you contribute to planning dental services in the area. (100 marks)

**PART B**

4. Write notes on :
  - 4.1. measures of central tendency (30 marks)
  - 4.2. qualitative data (40 marks)
  - 4.3. confidence interval (30 marks)
5. All 330 elders (aged over 65 years) living in a town underwent a detailed clinical examination by a neurologist and 30 were found to have dementia. Twenty Seven of the elders with dementia gave positive results on a brief screening test for dementia. Fifteen of the elders who did not have dementia also gave positive results on the brief screening test.
  - 5.1. Present these results in a table. (20 marks)
  - 5.2. Calculate sensitivity, specificity and predictive values of the screening test. (20 marks)
  - 5.3. Do you think that this test is good for screening dementia? Give reasons For your answer. (30 marks)
  - 5.4. The prevalence of dementia is lower in developing countries when Compared to developed countries. Discuss the possible reasons for this. (30 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER, 2007**

Date : 20<sup>th</sup> September 2007

Time : 1.00 p.m. - 4.00 p.m.

**Answer all five questions.**

**Answer each question in a separate book.**

**PART A**

1. "Future oral disease patterns in Sri Lanka will be determined by social and economic trends". Explain this statement. (100 marks)
2. Write an account of the importance of dental ancillaries in the provision of dental care in third world countries. (100 marks)
3. Discuss how community dental surgeons appointed to a Medical Officer of Health (MOH) area could contribute to the improvement of both oral and general health of the population. (100 marks)

**PART B**

4. It was believed that occurrence of cancer is higher among people around a telecommunication tower in the Kotte MOH area. Describe a research project to test this hypothesis giving reasons for the design you adopted. (100 marks)
5. Among a group of 10,000 adult males, 25% were obese and 1000 were diabetic. Half of the diabetics were obese as well.
  - 5.1. Present this data in a table. (60 marks)
  - 5.2. Draw a sketch of a graph to present the data. (40 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2008**

Date : 25<sup>th</sup> September 2008

Time : 1.00 p.m. - 4.00 p.m.

**Answer all five questions.**

**Answer each question in a separate book.**

1. As a dental surgeon how could you make use of your knowledge of Community Dentistry in your day to day practice ? (100 marks)
  
2. Write short notes on
  - 2.1. Importance of patient records in dental care. (30 marks)
  - 2.2. Screening for oral pre cancer. (30 marks)
  - 2.3. Role of dental surgeon in preventing HIV / AIDS. (40 marks)
  
3. Discuss the role of primary health care team in Sri Lanka to provide better oral health care at community level. (100 marks)

- 4.
- 4.1. Define the term epidemiology. (20 marks)
- 4.2. With regard to a given disease in a community, the incidence has been reported as 5 per 1000 population and prevalence as 20 per 1000 population in the year 2000. Explain the above situation. (30 marks)
- 4.3. The results of a case control study carried out to assess the relationship between formula feeding and wheezing is given below. Interpret the results.
- 4.3.1. Odds ratio = 3.2 (95% CI: 2.0 - 5.7) (25 marks)
- 4.3.2. Chi square value = 4.2; df=1 (25 marks)

**Table - Critical values for chi square distribution**

<b>df</b>	<b>P = 0.05</b>
1	3.84
2	5.99

- 5 . You have been requested to design a study to determine the prevalence of hypertension in an MOR area.
- 5.1. Describe the study design you would use. (20 marks)
- 5.2. Describe briefly the study population you would plan to include in the study. (30 marks)
- 5.3. Discuss possible errors in blood pressure measurements in this study and the steps that should be taken to minimize these errors. (50 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2009**

Date : 24<sup>th</sup> September 2009

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**  
**Answer each question in a separate book.**

**PART A**

1.
  - 1.1. List four (04) indicators that could be used to assess the oral health status of 12 year old children. (20 marks)
  - 1.2. Outline a study to assess the prevalence of dental caries among preschool children in an MOH area. (80 marks)
2. Discuss the importance of early detection and prompt referral in preventing and controlling of common oral health problems in Sri Lanka. (100 marks)
3.
  - 3.1. Define the term health education. (10 marks)
  - 3.2. List five (05) main aims of oral health education. (30 marks)
  - 3.3. Discuss the important information that has to be gathered at the planning stage of an oral health education programme. (60 marks)

## PART B

4. A study was conducted to compare the history of at least one episode of diarrhea among health care workers during the past six months. A sample of 540 male health workers were interviewed and 42% gave a history of watery diarrhea. Leave records of a sample of 270 female health workers were perused and it was found that 36% had a history of watery diarrhea during the same period. An appropriate statistical test was applied to compare the history of watery diarrhea between the two groups. The test statistics indicated a p value of 0.09.
- 4.1. What is the study design used ? (10 marks)
- 4.2. State the null hypothesis that would have been used in the statistical procedure. (20 marks)
- 4.3. What are the statistical tests that could be applied ? (10 marks)
- 4.4. What can be concluded from the above findings ? (30 marks)
- 4.5. Comment on the appropriateness of the methods that have been used to obtain information from the two groups. (30 marks)
5. Under nutrition has been found to be a problem among school children in an MOH area. As the Medical Officer of Health of the area, describe in detail how you would plan to address the issue. (100 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2010**

Date : 23<sup>rd</sup> September 2010

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**  
**Answer each question in a separate book.**

**PART A**

1. Discuss the importance of providing oral health care to pregnant mothers under the Maternal and Child Health (MCH) programme in Sri Lanka. (100 marks)
2. Discuss the factors that determine the oral health status of a community. (100 marks)
3. Write an account of the public health approaches to prevention of oral cancer. (100 marks)

**PART B**

4. As the Medical officer of Health (MOH) of the area, you are requested to plan a health programme to address the Dengue menace in a housing scheme consisting of 200 houses.
  - 4.1. Briefly describe five (05) items that you would consider in the situation analysis as a prerequisite to the preparation of the plan. (50 marks)
  - 4.2. List the broad headings of the operational plan. (30 marks)
  - 4.3. Describe two measures of success/failure that would be useful to monitor the programme. (20 marks)



5. A randomized controlled trial was conducted to assess the effect of needle length, on the incidence of local reactions following immunization of infants aged 4 months. Healthy infants attending an immunization clinic was randomized into two groups. One group received immunization with 25 gauge 16 mm needles and the other group with 25 gauge 25 mm needles. Both groups were followed up for three days and the parents were inquired into the occurrence of redness, swelling and tenderness at injection site. Table 1 presents some of the results of the study.

**Table 1** - Mean weights of babies and percentages of babies with local reactions to immunization over 3 days by the size of the needle used for immunization.

	Length of the 25 gauge needle		
	16 mm (n=53)	25 mm (n=57)	
Weight (kg)			
Mean (SD)	6.4 (0.7)	6.6 (0.8)	p=0.13
No. with any local reaction	25(48%)	18 (33%)	Relative Risk=1.3 95% Confidence Interval=1.02-1.98

- 5.1. What is the reason for presenting results of 'weight' of the two groups ? (20 marks)
- 5.2. What is the reason for selecting 'mean' as the summary measure to describe weight ? (10 marks)
- 5.3. Indicate the statistical test that can be used to compare the mean weights of the two groups. (20 marks)
- 5.4. What does the relative risk of 1.3 mean ? (20 marks)
- 5.5. What does the 95% confidence interval of 1.02 -1.98 mean ? (20 marks)
- 5.6. Comment on the suitability of the method used to assess the outcome of this study. (10 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2011**

Date : 22<sup>nd</sup> September 2011

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**  
**Answer each question in a separate book.**

**PART A**

1. You have been requested to conduct an oral health epidemiological survey. Explain the various methodological factors that will affect the reliability and validity of the data collected. (100 marks)
  
2.
  - 2.1. What is a health indicator ? (10 marks)
  
  - 2.2. List (05) indicators that could be used to measure the quality of care offered by hospital dental clinics. (30 marks)
  
  - 2.3. Describe the measures that could be taken to improve the quality of care offered by hospital dental clinics. (60 marks)
  
3. ‘Over-utilization of dental clinics in large hospitals and under-utilization of dental clinics in small hospitals is a long standing problem in the health system of Sri Lanka’.
  - 3.1. List the possible reasons for this situation ? (30 marks)
  
  - 3.2. Describe the measures that could be taken to overcome this situation. (70 marks)

**PART B**

- 4.
- 4.1.
- 4.1.1. Calculate the mean, the median and the mode for the following data :  
1, 2, 3 3 4 5 (15 marks)
- 4.1.2. What is the best measure of central tendency for the above data ? (15 marks)
- 4.1.3. Give reasons for the answer for question 4.1.2. (10 marks)
- 4.2. List four (04) properties of the ‘normal curve’. (20 marks)
- 4.3. At an examination it was felt appropriate to pass 75% of the candidates. At a previous examination the average mark obtained was 68% with a standard deviation of 14.  
What should be the pass mark if the above is to be achieved ? (40 marks)
5. A researcher was interested in confirming whether smoking status was associated with lung cancer. He conducted an epidemiological study among 1400 male participants. At the baseline examination, participants were asked to report their lifetime smoking habits. After 25 years, participants had an examination to determine whether they had developed lung cancer. The table presents the number of cases of lung cancer detected.

Table - Smoking status and number of lung cancer cases among the study population.

<b><u>Smoking status</u></b>	<b><u>N</u></b>	<b><u>Cases of lung cancer</u></b>
Never smokers	400	20
Ever smokers	1000	100

- 5.1. What is the study design used by the researcher ? (10 marks)
- 5.2. Create a 2 x 2 table for the data given above. (30 marks)
- 5.3. Calculate the relevant risk estimate and interpret it. (40 marks)
- 5.4. Age is a known confounding factor for the above association.  
What is meant by a 'confounding factor' ? (20 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2012**

Date : 20<sup>th</sup> September 2012

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**

**Answer each question in a separate book.**

**PART A**

1. Explain giving reasons whether you agree or disagree with the following statements.
  - 1.1. “Community water fluoridation is a better strategy to prevent dental caries in Sri Lanka than the use of fluoride toothpaste”. (25 marks)
  - 1.2. “Changing health behavior is more difficult than doing a good dental restoration”. (25 marks)
  - 1.3. “The impact of oral disease on daily life is minimal”. (25 marks)
  - 1.4. “It is impossible to provide satisfactory dental services in the developing countries without using dental ancillaries”. (25 marks)
  
2.
  - 2.1. Why is prevention better than cure ? (15 marks)
  - 2.2. Describe the different levels of prevention. (15 marks)
  - 2.3. Describe the activities that are appropriate to prevent and control oral cancer at the different levels mentioned in 2.2. (70 marks)
  
3.
  - 3.1. Discuss the occupational health hazards associated with the practice of dentistry. (50 marks)
  - 3.2. Discuss the impact of the environment on oral health of a population. (50 marks)

## PART B

- 4.
- 4.1. Breast cancer is a leading cancer among females in Sri Lanka. The incidence of breast cancer in Sri Lanka was 1.6% (95% Confidence Interval 1.3% - 1.8%), in the year 2000. A family history of breast cancer has been established as a significant risk factor (Relative Risk = 2.3).
- 4.1.1. List two (02) epidemiological measures that can be used to describe the breast cancer burden of a country. (20 marks)
- 4.1.2. Interpret the 95% Confidence Interval of breast cancer incidence in Sri Lanka in the year 2000. (20 marks)
- 4.1.3. Interpret the statement “family history is a risk factor for breast cancer (relative risk = 2.3)”. (20 marks)
- 4.2. Write short notes on :
- 4.2.1. Standard error (20 marks)
- 4.2.2. Normal distribution (20 marks)
5. A study was conducted to describe the association between high cholesterol diet and myocardial infarction. A total of 2820 individuals were included in this study. Information on high cholesterol diet was obtained using the 24 hour dietary recall method. High cholesterol diet was found in 314 of 732 individuals with myocardial infarction and 220 of 2088 individuals without myocardial infarction.
- 5.1. What is the study design ? (10 marks)
- 5.2. Give two (02) advantages and two (02) disadvantages of the study design mentioned in 5.1. (20 marks)
- 5.3. Draw a 2 x 2 table for this data. (20 marks)
- 5.4. Calculate the odds ratio for this data. (20 marks)
- 5.5. Name one (01) test that you could use to test the significance of this association. (10 marks)
- 5.6. Comment on the suitability of the method that has been used to obtain information on high cholesterol diet. (20 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2013**

Date : 12<sup>th</sup> September 2013

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**  
**Answer each question in a separate book.**

**PART A**

1.
  - 1.1. List three (03) factors in an oral health care delivery system that would affect its utilization. (15 marks)
  - 1.2. State the different methods of financing oral health care. (15marks)
  - 1.3. Describe the problems/shortcomings in the public sector oral health care delivery systems. (30 marks)
  - 1.4. Discuss the value of school dental therapists in the provision of oral health care to children in Sri Lanka. (40 marks)
  
2. Comment on the following statements
  - 2.1. “Fluoride in small amounts is beneficial to oral health but in excess is harmful”. (50 marks)
  - 2.2. “High global prevalence of dental caries and periodontal diseases is mainly due to socio-behavioural factors”. (50marks)

- 3.
- 3.1. What are the risk factors for oral cancer in Sri Lanka ? (30 marks)
- 3.2. List two (02) epidemiological measures that could be used to describe the burden of oral cancer and oral potentially malignant disorders (OPMD). (20 marks)
- 3.3. As a Regional Dental Surgeon of a district, what information is needed for planning a programme for prevention and control of oral cancer and OPMD ? (50 marks)

**PART B**

- 4.
- 4.1. The recorded number of rainy days per month in Watawala in year 2011 were as follows:
- 14,14,10,12,11, 13, 11, 11 ,14,10,13, 8.
- Calculate the mean, median, mode and range for the above data set.
- (40 marks)
- 4.2. All students who sat for the science paper in a class scored over 50. Four students were absent for the paper and the computer listed their scores as zero (0). The most repeated score in the data. set was zero (0).
- What is the most appropriate measure of central tendency for this data set ? Give reasons for your answer. (30 marks)
- 4.3. The following is the probability distribution of the number of telephone calls received by an office between 8.00 a.m. and 9.00 a.m. on a given day-

(X) Number of telephone calls	1	2	3	4	5
P (x)Probability of receiving telephone calls	0.1	0.2	0.2	0.4	0.1

Calculate the probability of receiving at least 3 telephone calls between 8.00 a.m. and 9.00 a.m. on any day. (30 marks)



5. In a community based study 5000 non-diabetic people over 18 years of age with low and high levels of physical activity were followed up for a period of 5 years. After 5 years, a total of 350 from both groups had developed diabetes mellitus. The total person time of follow up was 22504 years.

5.1. What is this study design ? (20 marks)

5.2. Briefly describe one (01) advantage and one (01) disadvantage of the above design for community based studies. (30 marks)

5.3. Calculate the incidence density of diabetes mellitus in this study. (20 marks)

5.4. The prevalence of diabetes mellitus in the same district was estimated to be 10% with a 95% confidence interval of 7.8 -12'3.

What do you understand by the confidence interval of 7.8 - 12.3 ? (30 marks)

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**SELECTION EXAMINATION FOR MSc (COMMUNITY DENTISTRY)**  
**SEPTEMBER 2014**

Date : 11<sup>th</sup> September 2014

Time : 1.00 p.m. – 4.00 p.m.

**Answer all five questions**  
**Answer each question in a separate book.**

**PART A**

1. Early Childhood Caries.' (ECC) could be considered as a public health problem in many countries.
  - 1.1 Explain the term 'Early Childhood Caries' (20 marks)
  - 1.2 Describe the risk factors for 'Early Childhood Caries'. (30 marks)
  - 1.3 As the Regional Dental Surgeon, describe how you would address this problem in your district. (50 marks)
  
2.
  - 2.1 List four (4) objectives of the 'National programme for providing oral healthcare during pregnancy'. (20 marks)
  
  - 2.2 Describe the role of the following staff categories in relation to this programme. (30 marks)
    - 2.2.1 Regional Dental Surgeon (RDS)
    - 2.2.2 Hospital Dental Surgeon
    - 2.2.3 Medical Officer of Health (MOH)
  
  - 2.3 List four (4) indicators that are used for monitoring and evaluation of this programme. (20 marks)
  
  - 2.4 Describe the factors influencing the utilization of oral healthcare services during pregnancy (30 marks)

3.
  - 3.1 List four (4) 'Oral Potentially Malignant Disorders' (OPMDs) (20 marks)
  - 3.2 Explain the importance of detecting OPMDs. (30 marks)
  - 3.3 Describe the barriers for prevention and early detection of oral cancer. (50 marks)

## **PART B**

4. A researcher conducted a case control study to determine the association between smoking and stomach cancer. He recruited 90 males with stomach cancer as cases and 180 apparently healthy males as controls. Fifty patients with stomach cancer were smokers. Among controls, 60 were smokers.
- 4.1 Present the above data in a 2 x2 table (30 marks)
- 4.2 Calculate the strength of association between smoking and stomach cancer (20 marks)
- 4.3 The 95% confidence interval calculated for the above measure ranged from 1.4 - 3.3. Interpret the results. (20 marks)
- 4.4 List the advantages of this study design over a cohort study design to determine the association between smoking and stomach cancer. (30 marks)
- 5.
- 5.1 A community based study on the prevalence and risk factors of stroke was conducted in the North-Western Province. The researchers attempted to determine the association between stroke and the variables: socio-economic level, smoking and the physical activity level.
- 5.1.1. List three categorical variables that can be used to determine the socio-economic level of a participant . (15 marks)
- 5.1.2 State two statistical tests that can be used to determine the association between socio-economic level and stroke (20 marks)
- 5.1.3 The researchers performed a suitable statistical test to determine the association between doing a labour-intensive job and ever having a stroke and obtained a  $p$  value of 0.02. Interpret this finding. (25 marks)
- 5.2
- 5.2.1 Describe the demographic basis for the increasing incidence of stroke in Sri Lanka. (20 marks)
- 5.2.2 Describe the health services that need to be developed to address this increasing trend. (20 marks)