POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1990

Date: 16th April, 1990 Time: 2.00p.m. - 5.00p.m.

PAPER I

Answer all five questions

1. Describe the differences between the following:

1.1	Incubation period and Communicable period	(25 marks)
1.2	Isolation and Quarantine	(25 marks)
1.3	Incidence and Prevalence of a disease	(25 marks)
1.4	Sensitivity and Specificity of a test	(25marks)

2.

2.1 List the diseases notifiable to the Ministry of Health in Sri Lanka (40 marks)

2.2 Name conditions that may be excluded from and conditions that may be included in the list, giving reasons (65 marks)

3. Define,

3.1	Perinatal mortality rate	(20 marks)
3.2	Case fatality rate	(20 marks)
3.3	Microfilaria rate	(20 marks)
3.4	Zoonoses	(20 marks)
3.5	Pasteurization of milk	(20 marks)

4. Write short notes on,

4.1	Surveillance of disease	(20 marks)
4.2	Age dependency ratio	(20 marks)
4.3	Odds ratio	(20 marks)
4.4	"Null Hypothesis"	(20 marks)
4.5	International Certificate of Cause of death	(20 marks)

5. Write notes on the effects on health of the following,

5.1	Air pollution	(50 marks)
5.2	Chemical contamination of food	(50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL , 1990

Date: 17th April, 1990 Time : 9.00 a.m. - 12.00noon

PAPER II

Answer all five questions

1. Describe the possible health hazards of persons living in poor housing conditions whose source of drinking water is from an unprotected well and the lack of their own latrine (100 marks)

2. Describe a programme for the prevention of accidents in Sri Lanka (100 marks)

3. Describe the potential health hazards to female nurses working in a General Hospital in Sri Lanka indicating how each of these hazards may be minimized or removed. (100 marks)

4. Describe the prevention and control of leprosy in Sri Lanka (100 marks)

5. Individuals should accept responsibility for their own health. Discuss this statement, illustrating your answer with examples. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1990

Date: 17th April, 1990 Time 2.00p.m. - 5.00 p.m.

PAPER III

Answer all five questions

1. The main objectives of the Acute Respiratory Infections Control Programme (ARI) are the reduction of mortality and morbidity due to acute respiratory infections in children under 5 years of age. Discuss the strategies employed to achieve these objectives.
(100 marks)

2. Describe the health hazards of tobacco use. (100 marks)

3. Discuss the problem of bias in epidemiological studies. (100 marks)

4. You (as the MOH of this area) have been informed of an outbreak of diarrhea in a village. The main symptoms of the cases are abdominal pain, fever and the passage of small watery stools with blood and mucus. How would you investigate this outbreak and what steps would you take to bring this outbreak under control?
(100 marks)

5. What factors should be taken into consideration in them design and execution of a screening programme in the early detection of disease? (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1990

Time: 18th April, 1990 Time : 9.00a.m. - 12.00noon

PAPER IV

Answer all five questions.

1.

1.1 Define Infant Mortality Rate (10 marks)
1.2 What information will be required to plan an intervention programme to reduce infant mortality in Sri Lanka (30 marks)
1.3 Describe briefly the main steps involved in planning such an intervention programme (60 marks)

2. Discuss briefly,

1.1 The role of incentives in the National Family Planning Programme in Sri Lanka (50 marks)
2.2 Use of the Child Health Development Record (50 marks)

3. Discuss,

3.1 The usefulness, & limitations of anthropometry in the assessment of the nutritional status (50 marks)
3.2 Role of immunization as an intervention in prevention of undernutrition in the preschool child. (50 marks)

4. Discuss briefly

4.1 The usefulness of genetic counseling (50 marks)
4.2 The services available for the handicapped child in Sri Lanka (50 marks)

5. Write notes on,

5.1 Long acting hormonal contraceptives (50 marks)
5.2 Hepatitis B vaccine (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
OCTOBER, 1990

Date: 15th October, 1990 Time: 2.00p.m. - 5.00p.m.

PAPER I

Answer all five questions.

1.

1.1 Describe the risk factors for diarrhea among children under 5 years in Sri Lanka. (50 marks)

1.2 What measures should be taken to prevent and control Diarrhoeal diseases in this age group. (50 marks)

2. Write notes on the following:

2.1 Advantages and disadvantages of cluster sampling (25 marks)
2.2 Uses of the standard deviation (25 marks)
2.3 Uses of the incubation period (25 marks)
2.4 Differences between Standard Death Rate and Standard Mortality Ratio (25 marks)

3. Write notes on the following:

3.1 Rationale for the sequence and timing of the immunization schedule for children in Sri Lanka (50 marks)
3.2 Rationale for obtaining an occupational history of an adult male who is admitted to a hospital (50 marks)

4. Write notes on the following:

4.1 Registration of births and deaths in Sri Lanka (40 marks)
4.2 Physical Quality of Life Index (30 marks)
4.3 Purposes of Epidemiology (30 marks)

5. An epidemic of a hitherto unknown disease has occurred in your area of approximately 100,000 population: How would you as Medical Officer of Health of the area, investigate epidemiologically, to determine the probable causes. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITYOF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
OCTOBER, 1990

Date : 16th October, 1990 Time : 9.00a.m. - 12.00noon

PAPER II

Answer all five questions

1. Describe the epidemiology of leprosy in Sri Lanka and how the incidence and Prevalence of this disease could be reduced. (100 marks)

2. Discuss (giving advantages and disadvantages) the different approaches that could be used to study:

   2.1 Risk factors in home accidents among children. (40 marks)
   2.2 Characteristics Of Patients admitted with Pesticide Poisoning. (30 marks)
   2.3 Prevalence of glycosuria at community level. (30 marks)

3.
   3.1 List the data available at regional level in Sri Lanka that could be used for planning, monitoring and evaluating the health care delivery system. Indicate sources of such information (30 marks)

   3.2 Discuss the limitations of such information. (30 marks)
   3.3 Outline briefly a plan to make available, reliable data that could be used for the above Purpose at regional level. (40 marks)

4. Discuss critically the following statements:

   4.1 Provision of an adequate supply of water will contribute to a substantial reduction of the problem of Protein energy malnutrition among pre-schoolchildren in Sri Lanka. (50 marks)
   4.2 Increase in the expectation of life at birth, from 45 to 70 years, in a given country requires 'diverting' the resources available more for the provision of services for the elderly. (50 marks)

5. Outline the steps involved in obtaining a community level assessment of the prevalence of "Ischaemic heart disease" in a province of Sri Lanka. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXMINATION
OCOBER, 1990

Date: 16th October, 1990 Time : 2.00p.m.- 5.00 p.m.

PAPER III

Answer all five questions.

1. Describe the immediate steps you would take under conditions of civil war to maintain the health of the displaced persons. (100 marks)

2. You are the M.O.H. of a large city. The Director of the Children's Hospital informs you that there is a sudden increase in the number of fever cases. Based on the signs and symptoms a tentative diagnosis of Dengue Haemorrhagic Fever (DHF) has been made. Describe the epidemiology of DHF and the preventive measures you would take to prevent the further spread of this disease. (100 marks)

3. Describe the health hazards associated with improper disposal of industrial waste. How may they be minimized? (100 marks)

4.
   4.1. What is the predictive value of a screening test? (20 marks)

   4.2. The Manager of the HIV/AIDS Control Programme consults you regarding a ELISA test he is planning to use for screening 100,000 (one hundred thousand) blood donors.
   He estimates that the HIV infection rate among the blood donors is 3 per 1000. Knowing the sensitivity of the ELISA test is 95% and the specificity is 98% determine the total number of positive results the Manager can expect. Of those positive how many will be true positives. (I.e. persons with antibodies against HIV, testing positive)? Comment on the usefulness of this single screening, test in the above situation. (80 marks).

5. You, as the Manager of the Expanded Programme on immunization, are very satisfied with the decrease in the incidence of poliomyelitis during the last few years.
   Last year only 4(four) cases were reported. You have now set a target of eliminating Polio from Sri Lanka before the year 1995. Describe the strategies you would employ to, achieve this target. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICIME) EXAMINATION
OCTOBER, 1990

Date: 18th October, 1990 Time: 9.00 a.m. - 12.00noon

PAPER IV

Answer all five questions

1.

1.1 Outline the present system of monitoring and evaluating the maternal and child health services in Sri Lanka. (50 marks)

1.2 Discuss how the monitoring and evaluation of the maternal health services in a MOH area could be improved. (50 marks)

2. "Emphasis on curative services will further reduce the infant mortality rate in Sri Lanka."
Discuss this statement. (100 marks)

3.

3.1 List and define five (5) indices that could be used to evaluate the national family planning programme in Sri Lanka (30 marks)

3.2 Discuss briefly the value of,

a) Oral contraceptives (35 marks)
b) Traditional methods of contraception (35 marks)
in the above programme

4. It has been observed that many pregnant mothers issued iron tablets at regular antenatal clinic visits remain anemic even after three (3) months

4.1 What are the likely causes? (30 marks)

4.2 What action would you take to prevent iron deficiency anemia in pregnancy. (70 marks)

5. Describe the use of genetic counseling as preventive measure. Illustrate your answer with two examples. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1991

Date: 23rd April 1991 Time : 2.00 p.m. - 5.00 p.m.

PAPER I

Answer all five questions.

1. Comment on the following statements:

   1.1 In a children's ward, most of the infants with Tuberculosis (TB) were found to have been given BCG, therefore, BCG is ineffective in the prevention of TB. (30 marks)

   1.2 That pneumonia constitutes a more serious problem for industry than the common cold is indicated by the fact that individuals who contract pneumonia remain away from work approximately 10 days, where as individuals with colds are confined at home for only two days. (30 marks)

   1.3 An important factor contributing to the infant mortality rate of 22.0 per 1000 live births, is the low registration of infant deaths. (40 marks)

2. Discuss the relationships between housing and health. (100 marks)

3. If you were to conduct a case-control study to identify the determinants of a disease x, what are the sources you could use to obtain controls. Indicate the advantages and disadvantages of using such sources. (100 marks)

4. Outline a national level programme for iodination of salt aimed at the prevention of endemic goitre, indicating the possible constraints. (100 marks)

5. Describe the differences between the following:

   5.1 incidence and prevalence of a disease (25 marks)
   5.2 isolation and quarantine (25 marks)
   5.3 carriers and vectors of a disease (25 marks)
   5.4 pasteurized and sterilized milk (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1991

Date: 24th April, 1991 Time: 9.00 a.m. - 12.noon

PAPER II

Answer all five questions.

1. Describe, giving examples, the types of graphical presentations used to present survey data. (100 marks)

2. Outline a need assessment study of the elderly (65 years and over) so as to formulate a geriatric service to ensure the maintenance of health and welfare of this population. (100 marks)

3.

   3.1 Describe how the Registrar General obtains information to calculate vital rates. (40 marks)

   3.2 How would you as Medical Officer of Health of an area with a population of 100,000 proceed to check in the accuracy of the vital rates for your area. (60 marks)

4. Write notes on the following:

4.1	Odds ratio	(25 marks)
4.2	Cluster sampling	(25 marks)
4.3	Confounding variable	(25 marks)
4.4	Incidence density	(25 marks)

5. List,

5.1	The differences between sensitivity and specificity of a test	(25 marks)
5.2	Causes of neonatal mortality in Sri Lanka	(25 marks)
5.3	Causes of blindness in Sri Lanka	(25 marks)
5.4	The differences between retrospective and prospective studies.	(25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
APRIL, 1991

Date: 24th April, 1991 Time : 2.00 p.m. - 5.00 p.m.

PAPER III

Answer all five questions.

1. Discuss briefly the epidemiological aspects of viral hepatitis infections. (100 marks)

2. Discuss the health implications resulting from the changing role of women in present day Sri Lanka. (100 marks)

3. The epidemiological pattern of Japanese Encephalitis in Sri Lanka has changed from an endemic pattern to a pattern of regional, seasonal outbreaks.
What measures would you advocate to control the occurrence of these outbreaks. (100marks)

4. Discuss the changing patterns of morbidity and mortality seen in Sri Lanka during the past fifty years. (100 marks)

5. It has been decided to study a representative sample of Sri Lankan women in the childbearing age group to find out their knowledge, attitude and practice of family planning,

    5.1. How would you select the sample. (40 marks)

    5.2 What steps would you take to minimize bias in obtaining the relevant information (60 marks)

POSTGRADUATE INSTITUTE OF 14EDICINE
UNIVERSITY OF COLONBO

MSc (COMNUNITY MEDICINE) EXAMINATION
APRIL, 1991

Date: 25th April 1991 Time: 9.00a.m. - 12.00noon

PAPER IV

Answer all five questions.

1. Discuss the role of inter-sectoral co-ordination and community participation in providing Primary Health Care in Sri Lanka (100 marks)

2. Discuss measures that should be taken to minimize accidents caused by health problems among bus drivers (100 marks)

3.

   3.1 Describe and discuss the present indicators used in Sri Lanka to evaluate

      a. Maternal health services (30 marks)

      b. Infant health services (30 marks)

   3.2 Discuss any modifications you would suggest in the present system of evaluation (40 marks)

4. On examination of the Child Health Development Records of infants and pre-school children attending a child welfare clinic it is observed that a large percentage of them have weights marked below the red line (3rd percentile)

   4.1 What could be the reasons for this? (40 marks)
   4.2 Discuss the principles, which should guide a nutrition educational programme for mothers attending a child welfare clinic (60 marks)

5. The acceptance of the IUCD in the National Family Planning Programme in Sri Lanka has declined since the 1980s.

   5.1 Discuss the possible reasons for this decline (50 marks)

   5.2 Outline a programme to improve IUCD acceptance (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
JANUARY, 1992

Date: 13th January, 1992 Time : 9.00 a.m. - 12.00 noon

PAPER I

Answer all five questions.

1. Discuss the relationship between occupation and health (100 marks)

2. Write comments would you make regarding the following proposals, to be implemented at national level:

   2.1. Introduction of an "on-site" feeding program for children between ages 2-5 years, with the aim of reducing protein Calorie Malnutrition among this age group (50 marks)

   2.2. Iodination of salt as a measure for the control of endemic goitre in Sri Lanka (50 marks)

3. Discuss critically the following statements:

   3.1. Increase in the life expectancy in a given country is a determinant in identifying health priorities at national level (50 marks)

   3.2. Decline in the incidence of leprosy associated with an increase in the prevalence indicates the effectiveness of the leprosy control programme (50 marks)

4. Outline the steps in planing and implementing a national level health educational programme in support of the control programme for diarrheal diseases (100 marks)

5. Write notes on the following:

   5.1 Physical quality of life index (25 marks)
   5.2 Standardized mortality ratio (15 marks)
   5.3 Chi square test (25 marks)
   5.4. Multistage sampling (15 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
JANUARY, 1992

Date: - 13th January, 1992 Time :- 2.00 p.m. - 5.00 p.m.

PAPER 11

Answer all five questions.

1. In 1971, Sri Lanka had an estimated mid year population of 12,600,000. Of this population 2,700,000 were females 15 - 49 years of age and of them 1,800,000 were married. During this period, 195,000 males and 185,000 females were born alive. There were 97,000 deaths of which 16,000 were under one year of age. Of these deaths under one year, 60% were during the first four weeks of life and of these deaths 40% were in the first week of life.
   Calculate all possible fertility and mortality rates (100 marks)

2. Discuss the advantages and disadvantages between cohort and case control methodologies in a study of risk factors for diarrhea due to enteric infection among children under 5 years of age (l00 marks)

3. Since the year 1945, the crude birth rate has fallen slowly and the crude death rate has fallen more rapidly in Sri Lanka.
   Describe the possible effects of these demographic changes (100 marks)

4. Describe how you as the Office-in-Charge of a refugee camp situated in Anuradhapura would provide services for the health and welfare of a refugee population of 2000, who have been displaced from the Northern and Eastern Provinces of Sri Lanka.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
JANUARY, 1992

Date: 14th January, 1992 Time : 9.00 a.m.- 12noon

PAPER III

Community Medicine candidates should answer all questions in Parts A and B.
Community Dentistry candidates should answer all questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Acquired Immuno Deficiency Syndrome (AIDS) is a Public Health problem.

    1.1. Discuss this statement (50 marks)

    1.2. What measures would you recommend to prevent the spread of this disease in Sri Lanka? (50 marks)

2. Write notes on,

    2.1. Age dependency ratio (35 marks)

    2.2. Vaccine efficiency (35 marks)

    2.3. ODDS ratio (30 marks)

3. In a trial to assess the validity of a urine strip test in the diagnosis of diabetes mellitus the following results were obtained when blood and urine samples of 200 subjects were examined after a 75-g oral glucose load. 5 subjects had a blood glucose level of > 10.0 mmol/l (ie. diabetes mellitus). All 5 subjects gave a positive urine test. In addition another 15 subjects who had normal post prandial blood glucose levels (< 10.0 mmol/1) too gave a positive urine test.

    3.1. What information is derivable from this data? (50 marks)

    3.2. How useful would this test be as a screening test for diabetes mellitus. Discuss giving reasons (50 marks)

PART B

4. It is proposed to cut down the resources allocated to the expanded Programme of Immunization.(EPI) as the incidence of the diseases covered by the EPI is very low.

   Discuss the above statement (100 marks)

5. The information given below was obtained from the Annual Health Bulletin, Sri Lanka for 1990.

   Leading causes of hospital deaths 1990

Rank Order	**Disease**
1	Ischaemic heart disease
2	Cerebrovascular disease
3	Malignant neoplasm
4	Diseases of the pulmonary circulation and other forms of heart diseases
5	Diseases of the gastrointestinal tract
6	Pesticide poisoning
7	Traumatic injuries
8	Signs, symptoms and Ill-defined conditions

5.1. Discuss critically the value of the information presented above with respect to the mortality pattern of the country (50 marks)

5.2. List the measures that could be taken to reduce mortality from the first three diseases given in the table (50 marks)

PART C

6. Discuss the changing patterns of oral disease globally and their implications for oral health manpower production and utilization. (100 marks)

7. Describe the methodology that should be adopted in the planning of oral health services for Sri Lanka (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
JANUARY, 1992

Date: 14th January, 1992 Time :2.00 p.m. - 5.00 p.m.

PAPER IV

Community medicine candidates should answer all questions in Parts A and B.
Community Dentistry candidates should answer all questions in Parts A and C.
Answer each part in a separate book.

PART A

1. What are the sociological and environmental implications of aging in Sri Lanka (100 marks)

2. Discuss the advantages/disadvantages of the following:

   2.1. Use of the field Public Health Midwife as a primary health care worker (40 marks)
   2.2. Fluoridation of water for the prevention of dental caries (30 marks)
   2.3. Use of incentives in the National Family Planning Programme (30 marks)

3. Explain giving examples:

   3.1. Reference population (25 marks)

   3.2. Sampling bias (25 marks)

   3.3. Measurement bias (25 marks)

   3.4. Confoundary bias (25 marks)

PART B

4. The estimated mid-year population of Sri Lanka in1989 was 16.8 million.

The following data for 1989 was extracted from the Annual Health Bulletin of 1990. (Sources: Family Health Bureau and Registrar General's Department)

4.1. 274311 pregnant mothers were registered by Public Health Midwives
4.2. 284405 live births were delivered in Government hospital
4.3. There were 278897 first visits of pregnant mothers to clinics

Discuss the above data regarding the provision of maternal care services, indicating further information you may need to evaluate these services
(100 marks)

5. There are complaints that a high proportion of women who have received Depot Medroxy Progesterone Acetate from some government and private service outlets in a MOH area, get pregnant. As the MOH of the area

5.1. How would you determine the possible reasons for this problem.
(50 marks)
5.2. What measures would you take to prevent its recurrence (50 marks)

PART C

6. Discuss the risk factors for dental caries in childhood and adolescence and their relative value as predictors of dental caries (100 marks)

7. Discuss the current concepts of demineralisation and remineralisation of enamel. What implications do the concepts have for the control of dental caries?
(100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1992

Date: 16th November, 1992 Time : 2.00 p.m. - 5.00 p.m.

PAPER I

Answer all five questions.

1. Describe the epidemiology of endemic goitre in Sri Lanka (100 marks)

2. Describe the conduct of a study to determine the level of cross infection (nosocomial infections) is a pediatric ward with 100 beds, with a bed occupancy rate of 100% and the average duration of stay Of 3 days, in a General Hospital in Sri Lanka
(100 marks)

3. Describe the possible influence of the changing demographic, social and economic patterns in Sri Lanka, in the care of the elderly (100 marks)

4. Write an essay on "The Quality of the Environment and Socio-economic Status are Determinants of the Health status of the people" (100 marks)

5. A study was conducted in two communities A and B to determine the effect of domestic hygiene as a risk factor in diarrhea among children under 5 years of age.

   The following results were obtained

   In each area, 100 cases and 100 controls were studied. In area A, 41 were described as "poor hygiene" and in this group there were 26 cases of diarrhea, while in the "good hygiene" group, there were 74 cases,

   In area B, 117"Were described as "Poor hygiene" and in this group there were 67 cases of diarrhea while in the "good hygiene" group there were 33 cases.
   Calculate the Odds Ratio and the Chi squared statistic and explain the difference observed. (100 marks)

POSTGRADUATE INSTTTUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1992

Date: 17th November, 1992 Time : 9.00 a.m. -12.00 noon

PAPER II

Answer all five questions.

1. Outline the steps in planning and implementation of a health education programme in support of control activities in a community where sexually transmitted diseases are on the increase. (100 marks)

2. Outline the steps involved in developing an information system for -

   2.1. Work related diseases (50 marks)
   2.2. Narcotic drug abuse (50 marks)

3. What measures should be taken to ensure reliability of data obtained from a field survey designed to determine the prevalence of hypertension in a given Community. (100 marks)

4. Discuss critically the following statements:

   4.1. Investment in facilities related to coronary by pass surgery is a priority in Sri Lanka (50 marks)

   4.2. Measles, Mumps, Rubella (MMR) vaccine should be introduced to the EPI, in place of measles vaccine (50 marks)

5. Write notes on,

   5.1. Requirements for a good screening test (50 marks)

   5.2. Usefulness of on-site feeding to improve the nutritional status of pre school children in Sri Lanka (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1992

Date: 17th November, 1992 Time: 2.00 p.m. - 5.00 P.m.

PAPER III

Community medicine candidates should answer all questions in Parts A and B.
Community Dentistry candidates should answer all questions in Parts A and
Answer each part in a separate book.

PART A

1. Explain the following,

    1.1. Sum of squares (25 marks)
    1.2. Dependent variable (25 marks)
    1.3. Coefficient of variation (25 marks)
    1.4. Use of students 't' test (25 marks)

2.

    2.1. List the objectives of Human Immuno Deficient Virus (HIV) surveillance programs (30 marks)

    2.2. What are the advantages of using results of HIV antibody tests, rather than using the number of Acquired Immuno Deficiency Syndrome (AIDS) cases, for the Assessment of the Epidemiology of AIDS in a country (30 marks)

    2.3. What information should a counselor give to a HIV positive Person (40 marks)

3. Hepatitis B vaccine should be introduced in the National Expanded Programme on Immunization (EPI)"Discuss this statement (100 marks)

PART B

4. The immunization coverage of infants under one year based on the returns of 1991 from RDHS is as follows

BCG	- 85.0%
DPT3	- 76.9%
OPV3	- 79.0%
Measles	- 69.5%

Explain the reasons for the differences in coverage (50 marks)

What action would you recommend to improve the coverage (50 marks)

5. Write notes on the following,

5.1. Prevention of road traffic accidents (50 marks)

5.2. Effects of contamination of food (50 marks)

PART C

6. Write a critical account of the various clinical methods (including indices), currently available for oral health surveys of periodontal disease (100 marks)

7. Discuss the significance of economic factors in the planning and delivery of dental care services (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER, 1992

Date: 18th November, 1992 Time : 9 00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all questions in Part A and B. Community Dentistry candidates should answer all questions in Parts A and C. Answer each part in a separate book.

PART A

1. "The range, quality and coverage of school health services in Sri Lanka do not ensure the full development of Sri Lankan children and youth"

   Discuss this statement indicating measures that should be taken to improve the present situation (100 marks)

2. Discuss the advantages and disadvantages of the devolution and decentralization of the health services in Sri Lanka. (100 marks)

3. Write notes on,

   3.1. Community participation in health cares (50 marks)
   3.2. Inter sectoral coordination and cooperation for health care (50 marks)

PART B

4.
   4.1. Discuss the risk factors influencing the infant mortality rate in Sri Lanka (50 marks)

   4.2. What interventions would you recommend to reduce the neonatal mortality rate? (50 marks)

5. You are appointed as M.O.H. to a newly demarcated area in the Polonnaruwa District, which at present is a grossly underserved in MCH/FP service. The area has a population of 50000 and an extent of 250 square Kilometers.
   What information would you need to assess the MCH/FP services in the area and how would you obtain this information? (100 marks)

PART C

6. Discuss the basis for minimum intervention approaches in the control of oral disease (100 marks)

7. Discuss the factors that should be taken into account in determining the most appropriate method of systemic fluoride therapy for a population.

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1993

Date: 15th November, 1993 Time: 2.00p.m. - 5.00p.m.

PAPER I

Answer all five questions.

1. Some of the results of a double blind trial of a new drug and methyldopa in-patients with mild to moderate hypertension are shown below.

Individual changes in systolic BP after 8 weeks (mmHg)

Patient	Methyldopa	New drug
1	+10	-10
2	+8	-9
3	-33	+4
4	+19	+4
5	+31	-27
6	-30	-12
7	0	-28
8	-2	-28
9	+3	-24
10	-14	-6

1.1 Do these data indicate that one of these drugs may have a greater effect on systolic BP than the other?

1.2 Within what limits would you expect the true mean difference between the effects of the new drug to be.

2. The Health Bulletin 1992 records that the chief cause of hospital deaths in the district of Gampaha, Kalutara, and Galle as Ischaemic heart disease. It was pesticide poisoning in the districts of Materiel, Nuwara Eliva, Anuradhapura, Polonnaruwa, Moneragala and Ratnapura while malignant diseases was the chief cause in Colombo and Kandy. Discuss the reasons for this geographical difference.

3. What errors may occur in a large-scale survey for the assessment of nutritional status of pre-school children. What action can be taken to minimize them.

4. Describe the common health problems among adolescents in Sri Lanka. As a Provincial Director of Health, describe how you would plan a programme to reduce such-morbidity.

5. Write notes on the following,

   5.1 Demographic transition in Sri Lanka and its possible effects.

   5.2 Age dependency ratio

   5.3 Pearson's correlation coefficient.

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1993

Date: 16th November, 1993 Time : 9.00 am. - 12.00 noon

PAPER II

Answer all five questions.

1. Describe the errors that should be avoided in constructing an interviewer an administered structured questionnaire to be used in a f field survey. (100 marks)

2. Write an essay on "Human population movements within Sri Lanka and its effects on health". (100 marks)

3.
    3.1. List the sampling procedures that may be used in epidemiological studies (20 marks)

    3.2. Give on example for each sampling method indicating why you selected such a method (80 marks).

4. Discuss what measures could be taken to reduce the incidence of low birth weight in Sri Lanka. (100 marks)

5. Explain giving an example for each, the following:

    5.1. Selection Bias (30 marks)
    5.2 Information Bias (30 marks)
    5.3 Confounding (40 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1993

Date: 16th November, 1993 Time : 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all questions in Parts A and B.
Community Dentistry candidates should answer all questions in Parts A and C.
Answer each part in a separate book.

PART A

1.

1.1. Discuss the existing sources of morbidity data in Sri Lanka (50 marks)

1.2. The following information is obtained from the Annual Health Bulletin, Sri Lanka for 1992: -

Table: Diarrhoeal Diseases Morbidity, Mortality & Case Fatality
1984 - 1992

Year	MORBIDITY		MORTALITY		CASE FATALITY
	Number	Rate/ 100,000 POPN.	Number	Rate/ 100,000 POPN.	Rate
1984	163,301	1,046.6	1,619	10.4	1.9
1985	134,474	848.8	1,158	7.3	0.9
1986	147,287	913.2	1,117	6.9	0.8
I 987	144,516	882.6	1,016	6.2	0.7
1988	130071	783.6	822	4.9	0.6
1989	119,003	708.1	739	4.4	0.6
1990	121,464	837.5	437	3.0	0.4
1991	118,122	802.3	442	3.0	0.4
1992	160,892	924.4	493	2.8	0.3

Discuss critically, the morbidity and mortality trends observed. (50 marks)

2. Discuss the disease and test characteristics that need to be considered before starting a population-screening programme. (100 marks)

3.

3.1. Discuss the advantages and disadvantages of case control studies (50 marks)

3.2. Of 595 patients who had received blood transfusions and 712 patients who had not 75 and 16 respectively developed hepatitis during a 21/2 year period of follow up.

3.2.1. What type of a study was this? (10 marks)

3.2.2. What is the risk of developing hepatitis if you have had a blood transfusion? (40 marks)

PART B

4.

4.1. List the elements of the new WHO global strategy for malaria control. (20 marks)

4.2 Discuss the implications of the new strategy for malaria control in Sri Lanka. (80 marks)

5.

5.1 Discuss the health problems that may be caused by,

(a) Noise (25 marks)
(b) Air pollution from motor vehicle exhaust fumes (25 marks)
(c) Depletion of the ozone layer (25 marks)
(d) Use of agrochemical (25 marks)

PART C

6. Write an account of the factors that will need to be assessed, and the methods used, in carrying out a comprehensive evaluation of School dental Services. (100 marks)

7. Discuss the Public Health Significance of current concepts of and epidemiological trends in periodontal disease. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1993

Date: 17th November, 1993 Time : 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all questions in Parts A and B.
Community Dentistry candidates should answer all questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Both field health services as well as medical institutions have important roles in the programme for the elimination of neo-natal tetanus by the year 1995.
Comment on the above statement. (100 marks)

2. Explain the usefulness of the following,

2.1.	Physical qualify of life index	(20 marks)
2.2.	Growth monitoring	(40 marks)
2.3.	Exclusive breast-feeding	(40 marks)

3. Write notes on:

3.1.	Community Medicine/community Dentistry	(50 marks)
3.2.	Surveillance of disease	(50 marks)

PART B

4. "The Public Health Midwife today is called on to, take part in many more activities than her designation suggests thus leading to dilution of her maternal and child health responsibilities"
Discuss the above statement (100 marks)

5. Discuss briefly the present Organization in Sri Lanka for the primary, secondary and tertiary prevention of.

5.1. Respiratory tuberculosis (25 marks)

5.2. Psychiatric illness (25 marks)

5.3 Oral cancer (25 marks)

5.4. Blindness (25 marks)

PART C

6. Discuss the factors that influence dental health behavior in a population. (100 marks)

7. Critically analyze the appropriates of the different types of topical fluorides used in the control of dental caries. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1994

Date: 28th November, 1994 Time: 2.00 p.m. - 5.00 p.m.

PAPER 1

Answer all Five questions.

1. Discuss factors in the environment that may adversely affect human reproductive health. (100 marks)

2. Describe the advantages and disadvantages of cohort and case control studies. (100marks)

3. Discuss what data are necessary for the preparation of a comprehensive plan for the elderly population in Sri Lanka. (100 marks)

4. Discuss critically the following statements:
   4.1 That pneumonia constitutes a more serious problem than the common cold is indicated by the fact that individual who contracts pneumonia stay away from work approximately 10 days, whereas individuals with colds stay away only for 2 days. (25marks)
   4.2 During a field survey to test the effectiveness of the polio vaccine, it was found that the incidence rate of poliomyelitis was lower among households that did not participate in the immunization programme. Therefore polio immunization is harmful. (25 marks)
   4.3 In children's ward, most of the infants with Tuberculosis were found to have been given BCG. This proves that BCG is ineffective in the prevention of Tuberculosis. (25 marks)
   4.4 The crude death rate for Sri Lanka was 6 per 1000 midyear population for a given year, while it was 10 per 1000 midyear population in England in the same given year.
   Therefore, the health conditions in Sri Lanka are better than in England. (25 marks)

5. Write notes on the following:

   5.1. Physical quality of Life Index (25 marks)
   5.2 Differences between carriers and vectors of a disease (25 mark)
   5.3 Differences between isolation and quarantine (25 marks)
   5.4 Demographic transition in Sri Lanka (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1994

Date: 29th November, 1994 Time: 9.00 a.m. - 2.00noon

PAPER 11

Answer all Five questions.

1. Write a short essay on "Micronutrients and Health". (100 marks)

2. It has been suggested that a health problem related to road traffic accidents is a priority health problem in Sri Lanka.

   2.1 What information would you need to assess the validity of this statement (40 marks)
   2.2 Outline a programme aimed at reducing this problem. (60 marks)

3. Discuss critically, the following statements:

   3.1 Anthropometry is the most useful indicator for assessment of the nutritional status of a community (50 marks)

   3.2 Incidence of low birth weight is a good indicator of socioeconomic status of a country. (50 marks)

4. Write notes on the following:

   4.1 An educational programme to improve the use of childcare services in a Medical officer of Health (MOH) area. (50 marks)

   4.2 Uses of vital statistics in the delivery of health care. (50 marks)

5. Discuss briefly, health problems related to:

   5.1 Unplanned urbanization (50 marks)
   5.2 Increasing employment of women. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1994

Date: 29th November, 1994 Time: 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C
Answer each part in a separate book.

PART A

1.

1.1. In a case control study of neonatal mortality, the utilization of antenatal care was compared between mothers of cases (neo-natal deaths) and mothers of controls (babies who survived the neo-natal period).

The total study group was 400 with one control per case. There were 140 mothers of cases and 170 mothers of controls, who used antenatal, care services.

Test whether the difference is by chance or is statistically significant.
(60 marks)

1.2 Write notes on sensitivity and specificity of a screening test.(40 marks)

2. Outline a programme for prevention of ischaemic heart disease in Sri Lanka.
(100 marks)

3. Write notes on the following,

3.1 Alpha (type 1) error and Beta (type II) error. (35 marks)

3.1 Unpaired 't' test and paired 't' test. (35 marks)

3.3 Coefficient of variation. (30 marks)

PART B

4. An outbreak of plague has been reported in India.

4.1 Describe the steps you would' take to prevent the introduction of plague to Sri Lanka. (50 marks)

4 .2 If a case of plague is detected in Sri Lanka, describe the preventive measures that should be taken. (50 marks)

5. What sources of information are available for surveillance of?

5.1 Rubella (10 marks)

5.2 Spinal cord injury (10 marks)

5.3 Lung cancer (10 marks)

5.4 Discuss the usefulness of these sources for each of the conditions listed above, giving reasons. (70 marks)

PART C

6. Discuss the public health aspects of malocclusion that would have a bearing on the future provision of Orthodontic Services in Sri Lanka. (100) marks)

7.

7.1 Outline the content of oral health education information. (40 marks)

7.2 Discuss the role of health education in oral health promotion.(60 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1994

Date: 30th November, 1994 Time: 9.00 a.m. - 12noon

PAPER IV

**Community medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.**

PART A

1. Discuss the following:

    1.1. Usefulness of the condom in preventive health services. (50 marks)

    1.2 Usefulness of the Intra Uterine Contraceptive Device in the national family planning programme. (50 marks)

2. Write notes on the following,

    2.1 School medical inspections in primary schools. (25 marks)

    2.2 Iodination of salt for the prevention of iodine deficiency diseases (25 marks)

    2.3 Effects of rubella in pregnancy and their prevention. (25 marks)

    2.4 Family planning counseling (25 marks)

3. Write notes on the following,

    3.1 "Green House" effects (35 marks)

    3.2 Activities of daily living (ADL) (35 marks)

    3.3 Health benefits of a high fibre diet (30 marks)

PART B

4. The Most recent annual health bulletin gives a maternal mortality rate of 0.4 per 1000 live births.

   4.1 Discuss briefly, giving reasons whether this figure indicates the true picture. (40 marks)

   4.2 Ministry of Health has paid attention to investigation of maternal deaths as an important step in reducing maternal mortality.
   Discuss critically the part played by this process in reducing maternal deaths. (60 marks)

5.

   5.1 Define Net Reproductive Rate (NRR). (20 marks)

   5.2 Discuss the advantages and disadvantages of NRR compared to other measures of fertility. (80 marks)

PART C

6. Discuss the role of starches and sugars in caries control against a background of current caries patterns globally. (100 marks)

7. Discuss the potential for including different methods of fluoride use in a national oral health plan for Sri Lanka. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER, 1995

Date: 27th November, 1995 Time : 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all Five questions.

l. Write an essay on "Industrialization and Health" (100 marks)

2. Discuss the usefulness/limitations of,

    2.1. the growth monitoring programme in Sri Lanka (50 marks)
    2.2. self administered questionnaires (50 marks)

3. A statement in the daily press states that "the system of registration of births and deaths in Sri Lanka is poor."
How would you conduct a study aimed at validating the above statement, in a district in Sri Lanka? (100 marks)

4. Discuss giving reasons, the sampling technique that will be most appropriate in each of the following studies:

    4.1. A national survey on smoking practices (35 marks)

    4.2. Study of the influence of "health inputs" in the school curriculum, on the level of health knowledge of Grade 8 students, in a given district (35 marks)

    4.3 Socio demographic characteristics of OPD attenders in a Teaching Hospital (30 marks)

5. Write notes on,

    5.1 95% confidence interval (35 marks)
    5.2. Sex ratio (35 marks)
    5.3. Analysis of variance (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMTNATION
NOVEMBER, 1995

Date: 28th November, 1995 Time :9.00a.m. - 12.00nonn

PAPER 11

Answer all five questions.

1. Describe briefly:

    1.1 relevance of environmental monitoring in prediction of outbreaks of vector bone diseases. (60 marks)
    1.2 importance of pre-placement medical examination. (40 marks)

2. Outline the steps involved in the development of,

    2.1 a surveillance system for AIDS. (50 marks)

    2.2 an information system for narcotic drug abuse. (50 marks)

3. Describe a programme for the prevention of Road Traffic Accidents in Sri Lanka. (100 marks)

4. Write notes on,

    4.1 Activities of Daily Living (ADL). (30 marks)

    4.2 Health implications of increased life expectation at birth. (40 marks)

    4.3 Standardized Mortality Ratio. (30 marks)

5. Discuss critically:

    5.1 Salt iodination programme in Sri Lanka. (50 marks)

    5.2 Available legal provisions to ensure food safety. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1995

Date: 28th November, 1995 Time: 1.30 P.m.- 4.30 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions it Parts A and C.
Answer each Part in a separate book.

PART A

1.

1.1 Define Screening. (10 marks)

1.2 List the factors that should be considered in establishing a screening programme. (30 marks)

1.3 The prevalence of undetected diabetes in a population to be screened is approximately 1.5% and it is assumed that 10,000 persons will be screened. The screening test will measure blood sugar content. A value of 180 mg. percent or higher is considered positive. The sensitivity and specificity associated with this screening are 22.9% and 99.8% respectively.

Set up a fourfold table with the appropriate numbers in each cell of the table. (30 marks)

1.4 Calculate the following values.

1.4.1 The percentage of false positives. (15 marks)

1.4.2 The predictive value of a negative test. (15 marks)

2. "Rubella vaccine should be introduced to the national immunization program for the Prevention of congenital rubella'.

   2.1 What information do you need to consider before making this statement? (40 marks)

   2.2 Outline an immunization program for the prevention of congenital rubella. (60 marks)

3. Comment on the following statements:

   3.1 A case-control study indicated a relative risk of lung cancer associated with positive smoking 2 and a Population attributable risk 6. (30 marks)

   3.2 The correlation coefficient between number of pets and number of adults with asthma in a household was 0.62. (30 marks)

   3.3 For allocation of health resources following incidence data were used from hospital indoor morbidity statistics.

Malaria	- 92/100,000
I.H.D.	- 212/100,000
Mental disorders	- 505/100,000

(40 marks)

PART B

4.

   4.1 Describe a program for control and prevention of Dengue/ D.H.F. in Sri Lanka. (50 marks)

   4.2 Outline the activities to be included in a program to reduce the incidence of ischaemic heart disease in Sri Lanka. (50 marks)

5. The measles immunization program was implemented throughout the country in 1985.

   a. The measles vaccine coverage 1989 - 1994 was 80%.

   b. Measles incidence has come down from 55.5 /100,000 in 1985 to 3.2 /100,000 in 1994.

   c. There is higher incidence of measles among females 15 - 29 years in 1994.

The age distribution of measles cases reported in1994 are given below.

Age distribution	% total
<9 month	8 . 7
9m. - 4 year	13.1
5 - 9 y	9.5
10 - 14y	10.9
15 - 19 y	11.7
20 - 24 y	19.0
25 - 29 y	15.3
30 - 34 y	5.1
35 - 39 y	1.5
*>40 y	5.2
Total	100%

5.1 Comment on the above information. (50 marks)

5.2 What action would you take to reduce the problem of measles in Sri Lanka taking into consideration the above given data. (50 marks)

PART C

6. As a Regional Dental Surgeon what methods would you adopt in carrying out the evaluation of hospital dental clinics in your area? (100 marks)

7. Write notes on: -

7.1 The case against routine six monthly recalls appointments for dental patients. (35 marks)

7.2 The advantages and disadvantages of the CPITN Index. (35 marks)

7.3 The limitations of dentist/population ratios in estimating dental manpower requirements. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1995

Date: 29th November, 1995 Time: 9.00a.m.- 12.00 noon

PAPER IV

Community Medicine candidates should answer all 5 questions in Parts A and B. Community Dentistry candidates should answer all 5 questions in Parts A and C. Answer each part in a separate book.

PART A

1. Explain giving examples,

    1.1 Confounding (25 marks)
    1.2 Target population (25 marks)
    1 .3 Information bias (25 marks)
    1.4 Ecological fallacy (25 marks)

2. Write notes on,

    2.1 National Immunization Day (N.I.D.) (25 marks)
    2.2 Total Fertility Rate (25 marks)
    2.3 Age structure of a population (25 marks)
    2.4 Healthy Worker effect (25 marks)

3. Discuss the following,

    3.1 The school health services of Sri Lanka (25 marks)

    3.2 The principles of a reproductive health education programme for Advanced Level students. (50 marks)

PART B

4. As the MOH of an area that is prone to recurrent flood damage what steps would you take to minimize the health effects of such a disaster. (100 marks)

5. You have been appointed as the DDHS of an area. An initial survey revealed the following:

   a. The area has its full complement of field staff.
   b. The total population is 80,000.
   c. Birth rates 18/1000 population.
   d. Still birth rates 24/1000 births.
   e. Current use of contraception (modern methods) is 34%.
   f. Percentage of infants below the 3rd centile is 34%.
   g. The incidence of low birth weight is 20%.

   5.1 What inferences can you draw from the above data? (40 marks)

   5.2 Discuss the steps you would take to improve the situation. (60 marks)

PART C

6. Discuss a suitable scheme for the control of oral cancer in Sri Lanka based on Primary Health Care principles. (100 marks)

7. Discuss the possible strategies for caries control in a community where caries experience is increasing. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc(COMMTJNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1996

Date: 25th November, 1996 Time: 1.30p.m.- 4.30p.m.

PAPER 1

Answer All five questions.

1. Write an essay on "Positive and negative effects in the care of the elderly due to the changing demographic and socioeconomic patterns in Sri Lanka". (100 marks)

2. Describe the measures that should be taken to ensure reliability of data collected by a team of interviewers for a demographic and health survey where the entire community is the study population. (100 marks)

3. Write notes on the following

3.1	Incidence and prevalence of a disease	(40 marks)
3.2	Incubation and communicable periods	(30 marks)
3.3	Uses of a frequency distribution	(30 marks)

4. In a given year, the estimated mid-year population of Sri Lanka was 12,680,000 of which 2,760,000 were females 15-49 years of age, and of them 1,800,000 were married. During the same year there were 382,600 live births and 97,000 deaths. Of these deaths 17,100 were under one year, 60% of them being neonates (under 28 days of birth) of the neonated deaths 40% were in the first week of life.

   Calculate all possible fertility and mortality rates. (100 marks)

5. A study of 1000 boys 10 years of age was conducted to determine whether the Intelligence Quotient (IQ) using valid tests, had any association with their nutritional status which Has assessed clinically as being either satisfactory or, unsatisfactory. The results were as follows:

Nutritional status	Intelligence Quotient			
Under	80 - 89%	90 - 99%	100% and over	80%
satisfactory	250	230	180	240
Unsatisfactory	40	30	20	10

5.1 How would you suspect that there may be an association? (20 marks)

5.2 Calculate the relevant statistic to either accept or reject the null hypothesis? (50 marks)

5.3 How could you clinically assess the nutritional status to be either satisfactory or unsatisfactory (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMM

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1996

Date: 26th November, 1996 Time :9.00a.m. - 12.00noon

PAPER II

Answer all five questions.

1. Discuss critically the food related nutrition intervention programs that have been implemented during the past 40 years in Sri Lanka. (100 marks)

2. Discuss the importance of,

   2.1 Referral system in health care (35 marks)
   2.2 Notification in prevention of disease (35 marks)
   2.3 Introduction of rubella vaccine to the national immunization program (30 marks)

3. Describe the steps involved in planning and implementing a health education programme aimed at control of HIV/AIDS, in the Southern Province of Sri Lanka (100 marks)

4.

   4.1 discuss the strengths and weaknesses in the present peripheral health services (This includes small District Hospitals and below and DDHS/MOH areas) (60 marks)

   4.2 outline your proposals to overcome the weaknesses (40 marks)

5. Write notes on,

   5.1 International certificate of cause of death (25 marks)

   5.1 Zero population growth (30 marks)

   5.3 Provision of services for displaced children (45 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY)- EXAMINATION NOVEMBER, 1996

Date: 26th November 1996. Time: 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each Part in a separate book.

PART A

1. Outline the activities to be included in a programme,

   1.1. to reduce the incidence of ora1 cancer in Sri Lanka (50 marks)
   1.2. for health promotion of female workers in a garment industry. (50 marks)

2.

   2.1. 18,405 men were followed up for a period of 5 years after a cardiovascular screening examination which included the WHO angina questionnaire and an Electrocardiogram (ECG)

   The following table shows the Coronary Heart Disease (CHD) mortality of the group, according to the initial screening examination results, in men where information was available.

   Table

Results of screenings tests	No. of men	No. of CHD deaths
1. Angina only (questionnaire)	1654	55
2. Ischaemic ECG only	889	38
3. Angina and ischaemic ECG	254	42
4. no angina or ischaemic ECG	15431	139
Total	18228	274

   2.1.1. For each of the groups 1,2 and 3 given in the table above. Calculate the relative risk of dying of CHD (15 marks)

2.1.2. What proportion of the initially screened population has

(a) an ischaemic ECG (5 marks)
(b) Questionnaire diagnosis of angina (5 marks)

2.1.3 What proportion of all deaths from CHD in this population were predicted by,

(a) an ischaemic ECG (5 marks)
(b) a questionnaire diagnosis of angina (5 marks)

2.1.4. From the data given calculate

(a) the non-response rate (5 marks)
(b) overall annual mortality rate from CHD (10 marks)

2.2. Outline a programme for the primary prevention of coronary heart disease in Sri Lanka (50 marks)

3. Write notes on :

3.1 confounding bias (25 marks)
3.2 uses of standard deviation (25 marks)
3.3. student 't' test (25 marks)
3.4 Cluster sampling (25 marks)

PART B

4.

4.1. Outline the activities that can be carried out to reduce the morbidity and mortality from home accidents in a rural community (50 marks)

4.2. Describe briefly the health hazards of air pollution (50 marks)

5. A 30-year-old married, male school teacher has been admitted to a District Hospital. A tentative diagnosis of viral hepatitis (A or B) has been made.

Describe the steps you would take in order to prevent further spread of the disease in the,

5.1. Ward (40 marks)
5.2. Community (60 marks)

PART C

6.

6.1. Write an-account of the factors that need to be consider in order to make a decision regarding fluoridation of community water supplies (60 marks)

6.2. Discuss the role of fissure sealants as a caries preventive agent in the context of prevailing trends in caries epidemiology (40 marks)

7. Discuss the possible impact of worldwide changes in oral disease patterns on the role and function of dental personnel (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1996

Date: 27th November, 1996 Time : 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.

PART A

1.

1.1. What criteria would you use in allocating funds for provision of MCH services at provincial level (50 marks)

1.2. Discuss critically the reliability of information available for identifying these criteria (50 marks)

2. Discuss the availability and reliability of routinely available data to determine the prevalence or incidence of the following childhood conditions.

2.1. malnutrition (35 marks)
2.2. delayed mile-stones (30 marks)
2.3. diarrhoeal diseases (35 marks)

3. Write notes on following,

3.1. perinatal mortality (35 marks)
3.2 exclusive breast feeding (35 marks)
3.3. age dependency ratio (30 marks)

PART B

4. Anemia is identified as a problem among pregnant women.
Discuss giving reasons

4.1 the strategies recommended for it's prevention (50 marks)
4.2. envisaged problems in implementing the above strategies (50 marks)

5.

5.1. What is reproductive health? How does it differ from the current concepts of Family Health in Sri Lanka? (40 marks)

5.2. List the four main causes of neonatal deaths in Sri Lanka? What measures would you recommend to reduce neonatal mortality? (60 marks)

PART C

6. Write an account: of the health policies and regulations that may facilitate oral health promotion in Sri Lanka (100 marks)

7. As a Regional Dental Surgeon discuss the strategies you would adopt for the control of periodontal disease in your area (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1997

Date: 24th November, 1997 Time : 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all five questions.

l.. Write an essay on 'Caring for Elderly' (100 marks)

2. Describe the measures that should be taken to ensure the reliability of data obtained from an epidemiological study to identify the prevalence and risk factors for Diabetes mellitus. (100 marks)

3.

   3.1. What is an 'indicator'? (10 marks)

   3.2. Describe critically the indicators used in the Maternal and Child Health Services of Sri Lanka to assess the health status of:

      3.2.1. Pregnant women (35 marks)
      3.2.2. Infants (35 marks)
      3.2.3. Pre-school children (20 marks)

4. Discuss critically the usefulness, and limitations of currently available legal provisions for,

   4.1. ensuring food safety (35 marks)
   4.2. prevention of environmental pollution (35 marks)
   4.3. safety at work place (30 marks)

5. Write notes on

   5.l. Disability adjusted life years (DALYs) (35 marks)
   5.2. Re-emerging communicable diseases (35 marks)
   5.3. Activities of daily living (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1997

Date: 25th November, 1997 Time : 9.00 a.m. -12.00 noon

PAPER II

Answer all five questions.

1. Write an essay on changing status of women in Sri Lanka and it's influence on health. (100 marks)

2. It has been stated that 'alcohol and narcotic drug abuse' is a major health problem in a given DDHS area

   2.1. Describe briefly how you would verify the above statement. (60 marks)
   2.2. Outline a program aimed at reducing alcohol and drug abuse. (40 marks)

3.
   3.1. Describe the health problems that can occur in a village bordering area of armed conflict (60 marks)
   3.2. Describe briefly a program aimed at providing health care to the population in this village (40 marks)

4. Discuss the role of sociocultural, economic and environmental factors on nutritional status of a community. (100 marks)

5. Describe the type of data giving examples of situations where you would use the following statistical procedures:

   5.1. Analysis of variance (35 marks)

   5.2. Correlation and regression (35 marks)

   5.3. Chi-square test (30 marks)

PART C

6.

6.1. What are the mechanisms by which fluorides prevent dental caries? (20 marks)

6.2. Compare and contrast topical and systemic fluorides as methods of caries prevention. (80 marks)

7. Explain how you would design and carry out a training and calibration program for dentists participating in a regional survey of dental caries and periodontal disease in school children (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1997

Date: 25th November 1997 Time: 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each part in a separate book.

PART A

1. The information given below has been collected in respect of whooping cough for Sri Lanka for the period 1980 to 1995.

Year	No. of admission to Govt. hospitals	Rate/ 100,000 Population	% notified
1980	542	3.7	19.5
1981	501	3.4	4.9
1982	296	1.9	16.8
1983	244	1.6	22.5
1984	274	1.7	27.3
1985	536	3.4	9.8
1986	157	0.9	15.2
1987	31	0.2	45.2
1988	25	0.2	4.0
1989	61	1.9	21.0
1990	271	1.9	21.0
1991	25	0.2	8.0
1992	6	0.0	33.0
1993	18	1.0	5.6
1994	59	0.3	7 4.5
1995	171	1.0	32.7

1.1. Comment on the above data (40 marks)
1.2. What further information would you require to assess the impact of the immunization program on whoopingcough. (60 marks)

2

2.1. Discuss the advantages and disadvantages of case control studies (50 arks)

2.2 The results of a study examining the relationship between cigarette smoking and cough in young boys are given in the table.

Table
Distributions of cases and control by smoking status

	Cough	no cough	Total
non-smokers	260	1000	1260
occasional smoker	400	1000	1400
regular smoker	80	100	180
Total	740	2100	2840

Comment on the results using appropriate epidemiological and statistical methods (50 marks)

3. write notes on -

3.1	Incidence density	(25 marks)
3.2	Case fatality rate	(25 marks)
3.3.	Attributable risk	(25 marks)
3.4.	Prevalence	(25 marks)

PART B

4. Explain

4.1. High risk strategy for control of cardiovascular disease (50 marks)

5. You are the Divisional Director of Health Services (DDHS) in a health area. An unusual number of cases of bacillary dysentery have been notified from the area.

5.1. How do you confirm whether or not there is an epidemic in your area? (30 marks)

5.2 List the sources of information you would use (10 marks)

5.3. Outline a program of activities for control of an outbreak of bacillary dysentery in your area (60 marks)

PART C

6. Write an account of the information that would be required in order to carry out an evaluation of the school dental services in an area under a Regional Dental Surgeon (100 marks)

7. Discuss the characteristics of a modern preventively orientated general dental practice (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER, 1997

Date: 26th November, 1997 Time : 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Write notes on:
   - 1.1 Replacement level fertility (30 marks)
   - 1.2 Standardized Mortality Ratio (30 marks)
   - 1.3 Well women's clinics (40 marks)

2. A study on knowledge and attitudes on abortion is planned among women in the childbearing age group in the Sabaragamuwa Province

   2.1. How would you select the sample? (40 marks)

   2.2. What steps would you take to improve the quality of information obtained? (60 marks)

3.

   3.1. Discuss the factors that need to be considered in developing a health education program on prevention of dental caries aimed at school children (50 marks)

   3.2. Discuss the prevention of home accidents (50 marks)

PART B

4

4.1. Define a maternal death (10 marks)

4.2. List the sources of information available in Sri Lanka on maternal deaths (10 marks)

4.3. The Maternal Mortality Rate as reported by the Registrar General was 42/100,000 live births in 1992 Discuss critically the above rate (30 marks)

4.4. Discuss the importance of maternal death investigation in improving Maternal Health, Services in Sri Lanka. (50 marks)

5. A study conducted in a DDHS area with a population of 100,000 and 35 PHM areas (no vacant areas) revealed the following:

(a) Birth rate of 18/1000 population

(b) 75% of pregnant women have been registered for antenatal care

(c) Perinatal mortality is 40/1000 births

(d) Contraceptive prevalence is 70% with 32% using a modern contraceptive method

5.1 What inferences would you draw from the above data? (40 marks)

5.2 As a Program Manager what measures would you take to improve the services in the above DDHS area ? (60 marks)

PART C

6

6.1. What are the mechanisms by which fluorides prevent dental caries? (20 marks)

6.2 Compare and contrast topical and systemic fluorides as methods of caries prevention. (80 marks)

7. Explain how you would design and carry out a training and calibration program for dentists participating in a regional survey of dental caries and periodontal disease in school children (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1998

Date: 23rd November, 1998 Time : 2.00 p.m.- 5.00 p.m.

PAPER I

Answer all five questions.

1. Write an essay on "Health of agricultural workers in the dry zone of Sri Lanka." (100 marks)

2.

   2.1 What are the sources of information on morbidity and mortality in Sri Lanka. (30 marks)

   2.2 Describe briefly how you would carry out a study to assess the quality of morbidity and mortality data, in a district in Sri Lanka. (70 marks)

3. Discuss critically the implementation of the following programs in Sri Lanka.

   3.1 Baby friendly hospital initiative (50 marks)

   3.2 Program for growth monitoring and promotion (50 marks)

4. Discuss the implementation of the legal provisions available in Sri Lanka for,

   4.1 Ensuring food safety (50 marks)

   4.2 Protecting the environment (50 marks)

5. Write notes on,

   5.1 Total fertility rate (35 marks)
   5.2 Activities of daily living (35 marks)
   5.3 Dependency ratio (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSC (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1998

Date: - 24th November, 1998 Time :- 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions.

1. Describe how you would plan and implement an educational program aimed at reduction of "alcohol and drug abuse" in a DDHS area. (100 marks)

2. Outline the steps involved in developing programs aimed at prevention of the following health problems, in a province in Sri Lanka.

   2.1 injuries related to road traffic accidents. (50 marks)
   2.2 oral cancer (50 marks)

3.
   3.1 Describe briefly the health and health related problems among young females employed in the "Free Trade Zones" in Sri Lanka. (40 marks)

   3.2 Outline how you would plan and implement a program aimed at health promotion among this group. (60 marks)

4.
   4.1 Discuss the statement "Suicide is a major cause of mortality in Sri Lanka." (40 marks)

   4.2 Describe how you would carry out a study to identify the risk factors for suicide. (60 marks)

5. Write notes on the following :

   5.1 Safe motherhood initiative. (50 marks)
   5.2 Prevention of child abuse. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1998

Date: 24th November, 1998 Time: 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Part A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1. The following data were reported in the Annual Health bulletin 1996.

Basic indicators for leprosy, 1987-1996
(Rates per 10,000 population)

Year	Prevalence as on 31st December 1996	Incidence
1987	1.7	0.7
1988	1.6.	0.9
1989	1.4	0.6
1990	1.6	1.5
1991	1.5	1.7
1992	1.2	1.4
1993	1.0	1.1
1994	1.1	1.2
1995	1.0	1.0
1996	0.9	0.8

1.1 Discuss why the incidence of leprosy for years 1991,1992 and 1994 is higher than the prevalence. (30 marks)

1.2 Discuss the relevance of the decrease in prevalence of a chronic disease such as in the table given above. (30 marks).

1.3 Discuss the usefulness of prevalence and incidence in Public Health Practice. (40 marks)

2.

2.1 Discuss the issues involved in validating a new test. (50 marks)

2.2 A recently developed dipstick test called Para Sight-F test to detect P.falciparum blood stages was evaluated in Sri Lanka under field conditions. This test is based on detecting antigen of P.falciparum in blood. The new test was compared with microscopy and the results are given below.

Para Sight -F test	Microscopy positive	Microscopy negative
Positive	188	24
Negative	36	1055

Calculate

a) The sensitivity of the New Test (25 marks)
b) The specificity of the New Test (25 marks)

3. Write short notes on

3.1 Focus group discussion (30 marks)
3.2 Hypothesis testing (35 marks)
3.3 Case control studies (35 marks)

PART B

4. Overseas employment of women whilst contributing significantly to the economy of the country, is bound to have health implications to the women as well as to their families in Sri Lanka.

4.1 Discuss the above statement (50 marks)
4.2 Recommend measures that would address the negative implications (50 marks).

5. Write notes on:

5.1 General principles applicable to control and prevention of epidemics (35 marks)
5.2 Importance of identification of high risk groups in disease control programs. (30 marks)
5.3 Newly emerging and re-emerging infectious Diseases (35 marks)

PART C

6. Discuss why some modalities of fluoride use would be more practical than others in the future control of dental caries in Sri Lanka. (100 marks.)

7. Write an account of the steps involved in planning oral health services for a health region. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 1998

Date: 25th November, 1998 Time :- 9.00 a.m. 12.00 noon

PAPER IV

Community Medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Write notes on

1.1	Congenital Rubella Syndrome.	(25 marks)
1.2	Confounding.	(25 marks)
1.3	Life tables.	(25 marks)
1.4	VDRL testing in pregnant women.	(25 marks)

2. Describe the activities you would include in a program for the prevention of the following :

2.1	Blindness.	(50 marks)
2.2	Cervical cancer.	(50 marks)

3. Discuss the reliability of routinely available data to determine the Prevalence / incidence of :

3.1	Hypertension.	(30 marks)
3.2	Hepatitis B	(30 marks)
3.3	Maternal Mortality	(40 marks)

PART B

4\.

4.1 What is a perinatal death. (20 marks)

4.2 The perinatal mortality rate is observed to be very high (50 per 1000 live births) in a DDHS area which has a population of 100,000 and 20 PHM areas. The geographic area is extensive with poor road communications. Most mothers (80%) deliver in institutions within the area (2 maternity homes + peripheral unit) with 15% of deliveries taking place at home. As the DDHS of the area what measures will you take to reduce perinatal mortality within the area. (80 marks)

5. School health is considered a priority area in the national health plan. There are 50 schools within a DDHS area including a National School. As the DDHS, you are asked to develop a plan of action for a comprehensive school health program for the division.

5.1 What are the areas that need to be addressed in developing a comprehensive school health program. (20 marks)

5.2 How would you obtain the information necessary for your DDHS area. (30 marks)

5.3 What activities would you include in developing a plan of action. (50 marks)

PART C

6. Describe how an understanding of risk factors can help in the prevention and control of periodontal disease. (100 marks)

7. Write notes on the following,

7.1 The CPITN Index of Periodontal disease. (30 marks)

7.2 Indices for epidemiological surveys of malocclusion. (30 marks)

7.3 Clinical audit in dentistry. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 1999

Date: - 29th November, 1999 Time :- 2.00 p.m. - 5.00 p.m.

PAPER I

Answer all five questions.

1.

1.1. Write an explanatory note on "The concept of Public Health" (30 marks)

1.2. Discuss the role of public health in human development (70 marks)

2. Outline the steps involved in a program aimed at reducing maternal deaths in the Central Province in Sri Lanka. (100 marks)

3. Discuss critically the legal provisions available in Sri Lanka for:-

3.1 Protection of the environment (50 marks)

3.2 Reducing occupational hazards (50 marks)

4. Discuss the usefulness/limitations of: -

4.1. Food supplementation programs as a method of reducing undernutrition among infants and pre-school children (60marks)

4.2. Anthropmetry in community nutrition surveys (40 marks)

5. Write notes on -

5.1 Incidence density (25 marks)
5.2 Confidence interval (25 marks)
5.3. Odds ratio (25 marks)
5.4. Cohort studies (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 1999

Date: - 30th November, 1999 Time :- 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions.

1.

1.1. Discuss the criteria of suitability of selecting a disease for screening (35 marks)

1.2. What are the factors that can increase the positive predictive value of a screening test ? (25 marks)

1.3. Discuss the factors that must be considered in the planning of a screening program. (40 marks)

2. The age structure of the population of Sri Lanka is becoming closer to the age structure of the population of a developed country.

2.1. Explain the above statement. (25 marks)

2.2 what are the factors that influence this change? (25 marks)

2.3. What are the future health and social problems of the above change? (25 marks)

2.4. What are the actions that should be taken to solve the above problems? (25 marks)

3.

3.1. Explain the information system currently existing in Sri Lanka for family planning. (40 marks)

3.2 Discuss the uses of information on family planning by

3.2.1. Users of the health care system (20 marks)
3.2.2. Health care providers (20 marks)
3.2.3. Health managers (20 marks)

4. Discuss briefly,

4.1. Uses and limitations of fertility indicators (50 marks)

4.2. System for registration of births and deaths in Sri Lanka. (50 marks)

5. Write notes on the following,

5.1. Ethics in medical research (30 marks)
5.2. Prevention of childhood injuries (35 marks)
5.3. Prevention of coronary heart disease. (35 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION-NOVEMBER, 1999

Date: - 30th November, 1999 Time :- 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in parts A and C.
Answer each part in a separate book.

PART A

1. A leading Cardiologist, among others, suspected that there was a relationship between hardness of water and cardiovascular diseases.

   1.1. Outline a study to test the above hypothesis. (50 marks)
   1.2. The study showed a negative association between levels of hardness of water and cardiovascular disease. Discuss the implications for the people living in areas with soft water. (50 marks)

2. Write short notes on: -

2.1.	Cross over design	(25 marks)
2.2	Snow ball technique	(25 marks)
2.3.	Recall bias	(25 marks)
2.4.	Analysis of variance	(25 marks)

3.

Fig :3. Morbidity and Mortality of Diarrhoeal Diseases and
Case Fatality Rate, 1985-1997
Rate per 100.000 population
Deaths per 100 cases100
-&- Morbidity
+ Mortality
K case Fatality

Excludes
1 Northern and Eastern Provinces.
2. Polonnaruwa District.
3. Jaffna, Kilinochchi Mullaitivu and Ampara Districts
4. Kilinochchi and Mullativu districts
5. Ampara district

3.1. List the probable sources of data for the above graph. (10 marks)
3.2. Discuss the limitations in achieving more complete reporting. (20 marks)
3.3. Explain the difference for mortality and case fatality rates. (20 marks)
3.4. Discuss briefly the reasons for the changes in the trend of the indicators given in the above graph (50 marks)

PART B

4. An outbreak of measles was reported in 1999. Measles vaccine was introduced to the immunization program in1984/1985.
Investigate the above outbreak with a view to making recommendations to the national authorities. (100 marks)

5.

5.1. State the probable health problems faced by,

(a) Migrant fisherman (25 marks)
(b) Welders in a small scale industry (25 marks)

5.2. Outline a practical model of health care services for any one of the groups of workers listed in 5.1. (50 marks)

PART C

6. Describe the different components of a possible national strategy for the prevention and control of oral cancer in Sri Lanka. (100 marks)

7. Discuss the various economic factors that would have a bearing on the efficiency and effectiveness of dental care delivery systems. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION-DECEMBER, 1999

Date: 1st December, 1999 Time : 9.00 a.m. - 12.00 noon

PAPER IV

Community medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Write notes on:
    - 1.1 Contraceptive Prevalence (30 marks)
    - 1.2 Screening for cervical cancer (35 marks)
    - 1.3 Growth monitoring in children (35 marks)

2. On scrutinizing the Registrar General's Reports you observe that there is an increase in the infant mortality rate, in a province over the past three years.

    - 2.1 Discuss the reasons for this increase. (50 marks)
    - 2.2 What action would you take to improve the situation. (50 marks)

3. A health camp is being conducted in a village where you are the DDHS. You decide that this is a good opportunity to convey "health messages" to the people attending the health camp.

    - 3.1 What messages would you give and why? (50 marks)
    - 3.2 Discuss how you would communicate the message. (50 marks)

PART - B

4. As DDHS, you have noticed that the teenage pregnancies are high within the area. What steps will you take to improve the situation, since teenage pregnancies pose an increased threat to a woman's life. (100 marks)

5. You have been appointed as the DDHS to an area having an extent of 150 sq.km. and a population of 80,000 with full complement of PHMs (25 PHM.M). The data reported by the PHMM for the previous year are as follows:

	No. Reported
Live births	1965
Low Birthweight	492
Still births	62
Early neonatal deaths (Within 1st seven days after birth)	12
Maternal deaths	03
Current users of modern Contraceptive methods	2160

5.1 What inferences can you draw from the above data (50 marks)
5.2 What steps will you take to improve the situation? (50 marks)

PART C

6. Discuss the relative merits of the clinical methods and indices used to estimate the prevalence and severity of periodontal disease. (100 marks)

7. Describe the various practical applications of the "minimum intervention approaches" in the control of dental disease. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE / COMMUNITY DENTISTRY) EXAMINATlON
NOVEMBER, 2000

Date: 27th November, 2000 Time: 2.00 p.m - 5.00 p.m.

Answer all five questions.

1. Discuss the demographic data that you can use to plan health services in a community. (100 marks)

2. Discuss the relevance of environmental monitoring in predicting outbreaks of the common vector born diseases in Sri Lanka. (100 marks)

3. It was required to select a physician for a programme of case finding and treatment of Ischaemic Heart Disease (IHD). Two physicians A and B examined 30 adult males separately and picked IHD patients.
Subsequently the IHD status of each person was determined using a standard method.
The results are given below.

Physician	**IHD Status**	**True cases**	**True-non cases**	**Total**
A	IHD	7	4	11
	Non IHD	8	11	19
	Total	15	15	30
B	IHD	14	7	21
	Non IHD	1	8	9
	Total	15	15	30

3.1 Calculate the sensitivity and specificity of each physician (50 marks)

3.2 Which physician would you select; for this programme,. reasons for your selection. (50 marks)

-

4. Discuss the health hazards faced by the following and how they could be prevented.

4.1	Agricultural workers	(50 marks)
4.2	Persons working in the construction industry.	(50 marks)

5. Write short notes on the following:

5.1	Focus group discussions	(25 marks)
5.2	Primary prevention of cardiovascular diseases	(25 marks)
5.3	Notification of diseases	(25 marks)
5.4	Odds Ratio	(25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE / COMMUNITY DENTISTRY) EXAMINATlON
NOVEMBER, 2000

Date : 28th November,2000 Time: 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions.

1. Write an essay on " domestic violence ” (100 marks)

2. Describe the type of data giving examples where you would use the following statistical procedures.
   - 2.1 Linear regression (30 marks)
   - 2.2 “ f ” test (40 marks)
   - 2.3 Chi Square Test (30 marks)

3. 1319 children were studied to examine the relationship between cough at night at age 14 years and hospitalization for bronchitis before age 5 years.
   The results are given in Table 3.1

Table 3.1 : Relationship between cough at night and hospitalization for bronchitis before 5 years of age.

Cough at	**Bronchitis of 5 years**		
night 14 yrs.	**Yes**	**No**	**Total**
Yes	26	44	70
No	247	1002	1249
Total	273	1046	1319

   - 3. 1 List all possible statistical tests that can be carried out to examine this relationship. (20 marks)
   - 3.2 Perform one of the tests, to test the hypothesis (30 marks)
   - 3.3 What steps would you take in carrying out such a study to ensure validity of the findings. (50 marks)

4. Discuss critically routinely available health information to evaluate the problem of cardio-vascular diseases in Sri Lanka (100 marks)

5. Discuss the strengths and weaknesses in decentralization of health care in Sri Lanka. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE / COMMUNITY DENTISTRY) EXAMINATlON
NOVEMBER, 2000

Date : 28th November, 2000 Time: 2.00 p.m. - 5.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

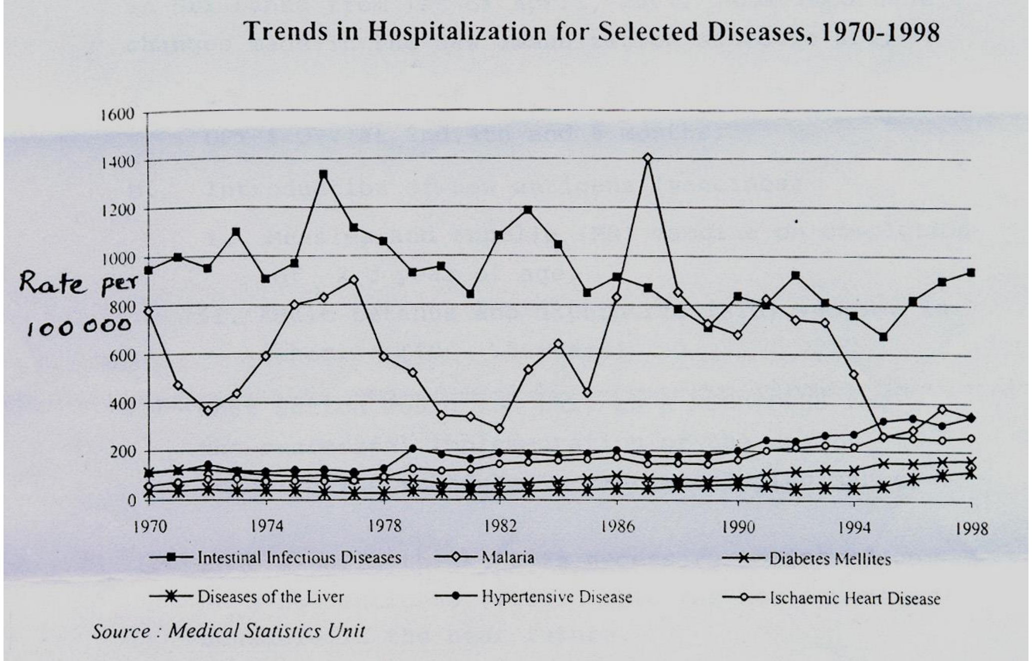
1. Significant recent dengue outbreaks have occurred in five of the WHO Regions with European Region being the only exception.

   1,1 List the factors responsible for the resurgence of the dengue epidemic globally. (15 marks).

   1.2 List the basic strategies for the prevention and control of dengue and dengue haemorrhagic fever. (15 marks)

   1 .3 What action would you take as a MOOH/DDHS to prevent and control an outbreak of DF/DHF in your area ? (70 marks)

2. Write notes on :
   2. 1 Incubation period (25 marks)
   2.2 Types of epidemic (25 marks)
   2.3 Case fatality rate (25 marks)
   2.4 Healthy worker effect (25 marks)



Trends in Hospitalization for Selected Diseases, 1970-1998

Source : Medical Statistics Unit

3.

3.1 Comment on the trends of diseases shown in the above figure. (50 marks)

3.2 Give reasons for trends of

- 3.2.1 Intestinal infectious disease (25 marks)
- 3.2.2 Hypertensive disease (25 marks)

PART B

4. The Expanded Programme on Immunization (EPI) schedule was revised in May 2000 and it will be implemented in Sri Lanka from 1st of April, 2001. Some important changes made in the new immunization schedule are:

a. Administration of 1st, 2nd and 3rd doses of DPT & OPV at 2nd, 4th and 6 months.

b. Introduction of new antigens (vaccines)

- i. Measles and rubella (MR) vaccine on completion of 3rd year of age.
- ii. Adult tetanus and diphtheria (aTd) vaccine in school (10 - 15 years)

4.1 What action would you take as a MOOH/DDHS for the successful implementation of the new immunization schedule in your area ? (60 marks)

Some experts think it is necessary to introduce more new antigens (vaccines) to the new immunization schedule in the near future.

4.2 What factors would you take into consideration before deciding to introduce new antigens (vaccines) to the revised schedule (20 marks)

4.3 Name two antigens you would like to introduce to the revised EPI schedule in the near future and explain why ? (20 marks)

5. Discuss the functions of an occupational health service for garment industry worker. (100 marks)

PART C

6. Explain how you would carry out the following tasks:

6. 1 Do a fluoride gel application in a child. (30 marks)

6.2 Determine the rate of progress of periodontal disease in a sample of tea estate workers. (30 marks)

6.3 Evaluate a school dental health programme (40 marks)

7. Write notes on :

7.1 The IOTN Index of malocclusion. (30 marks)

7.2 The declining trend of dental caries in some parts of the world (40 marks)

7.3 Techniques for estimating future dental manpower requirements. (30 marks)

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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE / COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2000

Date : 29th November, 2000 Time: 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all 5 questions in Parts A and B.
Community Dentistry candidates should answer all 5 questions in Parts A and C.
Answer each part in a separate book.

PART A

1. Write short notes on :

    1.1 Importance of teacher participation in school medical inspections. (35 marks)
    1.2 Usefulness of CHDR as an educational tool. (30 marks)
    1.3 Role of public health staff in well women clinic programme (35 marks)

2. Discuss the implications of legalizing abortions in Sri Lanka.. (100 marks)

3. Discuss the role of IEC and community participation in improving nutritional status of preschool children. (100 marks)

PART B

4. The maternal mortality ratio for Sri Lanka for 1997 calculated from different sources was as follows:

Source	MMR
Registrar General	24 / 100000 LB
MOH (H 509)	48 / 100000 LB
Hospitals	36 / 100000 LB
Annual Maternal death reviews (Family Health Bureau)	62 / 100000 LB

4.1 How do you explain the differences in MMR from different sources. (50 marks)

4.2 Discuss the way and means to improve the reporting system from different sources. (50 marks)

5. Geeta is an eight month old baby girl. She is the fifth child in a family of five children. The eldest child is eight years old. Geeta's mother is now two months Pregnant.

Geeta's weight at the last clinic weighing (two weeks ago) was 5.5 kg. Her birth weight was 2.4 kg. She was weighed only twice in clinics after birth. She had been only on breast milk until the age of 6 months. Thereafter her mother had introduced canjee water and fruit juice. She had been getting recurrent attacks of diarrhoea. Now her mother is giving her formula feeds and no breast milk at all. Geeta is not given any solid foods during the episodes of diarrhoea. Geeta has received two doses of OPV and DPT. When she was taken to the clinic for the 3rd dose of OPV and DPT the PHM had refused to give the vaccines as she had diarrhoea.

5. 1 List the problems Geeta is facing. (40 marks)

5.2 Discuss how you would manage this case as the MOH of the area. (60 marks)

PART C

6. 6.1 Outline the principle findings that emerged from the last National Oral Health Survey in Sri Lanka. (30 marks)

6.2 Discuss the implications of the findings for oral health services in Sri Lanka. (40 marks)

6.3 Explain the limitations of the National Oral Health Survey Data. (30 marks)

7. 7.1 Enumerate the principles of " Primary Health Care" (20 marks)

7.3 Discuss the application of the above principles in planning and implementing a programme to prevent dental caries in school children in a health region. (80 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
AUGUST, 2001

Date: 27th August, 2001 Time: 2.00p.m. - 5.00 p.m.

PAPER I

Answer all five questions.

1. You are the MOH/DDHS in an area which has been affected. by severe drought for over one year.
What steps would you take to ensure the health of children under 5 years of age in this area. ` (100 marks)

2. A cross sectional population study of varicose veins yielded the following estimates

Age	Prevalence %	
	M	F
10-	0.5	1.0
20-	3	5
30-	12	18
40-	26	21
50-	30	26
60-	18	21
70+	10	8

2.1 Describe the age /sex distribution of the results. (40 marks)

2.2 Discuss the alternative interpretations. (30 marks)

2.3 How might these be distinguished (30 marks)

3. Write notes on :

3.1	Confidence interval	(25 marks)
3.2	Selection bias	(25 marks)
3.3	Repeatability of measurement	(25 marks)
3.4	Total Fertility Rate	(25 marks)

4. It is suggested that the incidence of cancer of the tongue is increasing in men under 40 years of age. This has been attributed to the use of smokeless tobacco products.

   4.1 Design a study to investigate whether smokeless tobacco products are a risk factor for the change in the pattern of cancer of the tongue. (60 marks)

   4.2 Discuss problems inherent in such a study. (40 marks)

5. Outline a programme aimed at prevention of the following problems in a province.

   5.1 Suicide among young adults (50 marks)

   5.2 Prevention of child abuse (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
AUGUST, 2001

Date : 28th August, 2001 Time: 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions

1. Write notes on the following:

1.1	Age Dependancy Ratio	(35 marks)
1.2	Standard Error	(30 marks)
1.3	Green House Effect	(35 marks)

2. Discuss the health benefits of doing regular physical exercise. (100 marks)

3. 3.1 Discuss the sampling technique you would use for a national study of mental health of adolescent school children (50 marks)

   3.2 Briefly describe the steps that could be taken to cope with stress (50 marks)

4. Write notes on:

4.1	Baby friendly hospital initiative	(50 marks)
4.2	Prevention of road traffic accidents	(50 marks)

5.

   5.1 Draw the population pyramid of Sri Lanka that you would expect to see from the results of the 2001 census. (20 marks)

   5.2 Discuss the reasons which have contributed to this pyramid. (40 marks)

   5.3 What health and social problems have resulted from this change. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
AUGUST, 2001

Date : 28th August, 2001 Time: 2.00p.m. - 5.00 p.m.

PAPER III

Answer all five questions in Parts A and B.
Answer each part in a separate book

PART A

1. A large outbreak of measles occurred in Sri Lanka in 1999/2000, in spite of a high immunization coverage among infants and children.

    1.1 List the factors responsible for the occurrence of this outbreak. (10 marks)

    1.2 What action should you take as a public health specialist at central level to prevent measles outbreaks in the future ? (20 marks)

    1.3 The Health Authorities have recommended to conduct a "catch-up" immunization campaign (to immunize all children 1-15 years of age as a mass immunization campaign) in the year 2002 as one of the strategies to prevent future outbreaks. How would you as the MOH/DDHS plan and implement a "catch-up" immunization programme in your area ? (70 marks)

2. Write notes on:

    2.1 Adverse events following immunization (20 marks)

    2.2 Direct observed treatment short course (DOTS) for tuberculosis (20 marks)

    2.3 Importance of identifying health hazards in the workplace (60 marks)

3. You are the Divisional Director of Health Services (DDHS) / Medical Officer of Health (MOH). An unusual number of cases of typhoid fever have been notified from the area.

3.1 How would you confirm whether or not there is an outbreak in your area ? (30 marks)

3.2 List the courses of information you would use. (10 marks)

3.3 Outline a programme of activities for control and prevention of an outbreak of typhoid fever in your area. (60 marks)

PART B

4.

4.1 Comment on the trends of HIV cases and AIDS shown in the figure 1 below. (50 marks)

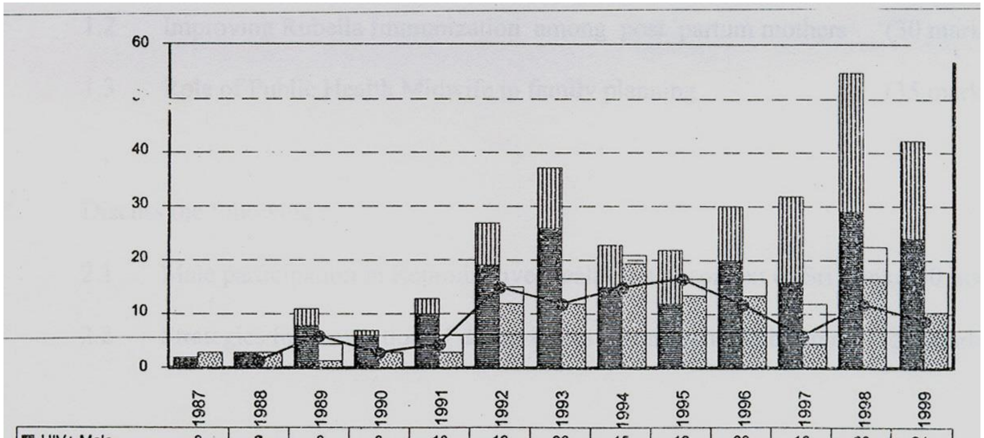
4.2 What are the other methods available for surveillance of HIV / AIDS ? (25 marks)

4.3 Discuss the issues involved in including HV / AIDS in the list of Notifiable Disease. (25 marks)

Figure I

ANNUAL HEALTH RULLETIN-1999 ***Public Health Services***

~ **Fig 1 HIV Cases and AIDS Cases and Deaths 1987 -1999**



	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
▩ HIV+ Male	2	3	8	6	10	19	26	15	12	20	16	29	24
▥ HIV+ Female			3	1	3	8	11	8	10	10	16	26	18
▨ AIDS-Male	2	2	1	2	2	8	8	13	9	9	3	11	7
☐ AIDS-Female			2		2	2	3	1	2	2	5	4	5
● Deaths-From Aids		1	4	2	3	10	8	10	11	8	4	8	6

Source : STD/AIDS Control Programme

5. A new test has been developed for screening of rheumatoid arthritis, in the early stages of the disease.

It was evaluated in a community of 9680, where prevalence of rheumatoid arthritis is known to be 10%. In those who had rheumatoid arthritis the test gave a positive result in 887. Of those who did not have rheumatoid arthritis 7000 tested negative.

5.1 Write the data in a 2 x 2 table (20 marks)

5.2 Calculate measures relevant to evaluating this screening test (50 marks)

5.3 What measures would you take to improve the usefulness of this as a screening test ? (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE) EXAMINATION
AUGUST, 2001

Date: 29th August, 2001 Time: 9.00 a.m. - 12.00 noon

PAPER IV

Answer all Five questions in Parts A and B.
Answer each part in a separate book.

PART A

1. Write short notes on :

    1.1 Promoting Exclusive Breast Feeding in the community (35 marks)

    1.2 Improving Rubella Immunization among post partum mothers (30 marks)

    1.3 Role of Public Health Midwife in family planning (35 marks)

2. Discuss the following:

    2.1 Male participation in Reproductive Health in the context of Sri Lanka (50 marks)

    2.2 Strategies for prevention of dental caries among school children (50 marks)

3. Discuss the possible reasons for failure of health services in the following situations.

    3.1 A 40 year old woman dies of post partum haemorrhage while being transferred from a District Hospital to a Base Hospital. (50 marks)

    3.2 A 12 month old baby is admitted to hospital with diarrhoea. This is the 3rd attack of diarrhoea within the last 4 months. He has not received measles immunization and his weight is 5.5 killograms. (50 marks)

PART B

4. As MOH/DDHS you decide to carry out a health education programme among internally displaced persons living in welfare centers in your area.

    4.1 What messages would you give them and why ? (60 marks)

    4.2 Discuss how you would communicate these messages (40 marks).

5. As the MOH/DDHS of a rural area you find that 60% of the pregnant mothers are clinically anaemic.

    5.1 What measures would you take to manage this health problem ?(50 marks)

    5.2 How would you carry out a community education programme to prevent anaemia among pregnant mothers in your area? (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY)
EXAMINATION - NOVEMBER, 2001

Date: 26th November, 2001 Time: 9.00 a.m. - 12.00 noon.

PAPER I

Answer all five questions.

1. Discuss the information required to develop a comprehensive plan for health and social welfare for the elderly population in a province in Sri Lanka. (100 marks)

2. In Sri Lanka, infant mortality rate for 1950 was 82 per thousand live births and in 1998, 15.4 per thousand live births.
The neonatal-post neonatal death ratios for 1950 and 1998 were 1:3 and 2:1 respectively.

2.1 Discuss the causes for the fall of infant mortality rate between 1950 and 1998. (60 marks)

2.2 Explain the change in the neonatal-post neonatal death ratios. (40 marks)

3.

3.1 Discuss the following statement:
"Chemical food contamination is an increasing problem in Sri Lanka" (80 marks)

3.2 List the activities that could be carried out to control the above problem. (20 marks)

4. Write notes on:

4.1 Confidence interval (35 marks)
4.2 Odds ratio (30 marks)
4.3 Cohort studies (35 marks)

5.

5.1 Enumerate the major demographic characteristics you expect to find in the 2001 census. (20 marks)

5.2 Outline briefly the reasons for the changes you expect to see in the population structure in this census (60 marks)

5.3 List the implications of one of the major changes in the population structure, for future health care. (20 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2001

Date: 26th November, 200 I   Time: 1.30 p.m. - 4.30 p.m.

PAPER II.

Answer all five questions.

1. The following data was available for the year 2000 for a health unit area in Sri Lanka with full complement of public health midwives.

Estimated mid year population	50000
No. of live births	1050
No. of maternal deaths	02
No. of infant deaths	15
No. of deaths in the first month	10
Total number of deaths	310
No. of infants with low birth weight	230

1.1 Calculate the relevant rates pertaining to the area and comment briefly on each. (50 marks)
1.2 What steps will you take as DDHS to improve the situation (50 marks)

2. A study was carried out to determine whether watching violent TV programmes causes aggressive behaviour among children. A random sample of 100 boys aged 10 years were asked to indicate their favourite TV programme. A psychologist then observed each child and assessed his behaviour during playtime. Of the 65 children who preferred violent TV programmes, 50 were recorded as being aggressive. Of the 35 who preferred non -violent TV programmes 10 were recorded as having aggressive behaviour.

2.1 Find out whether watching violent TV programmes is associated with aggressive behaviour among young boys. (50 marks)
2.2 Comment on the design of the above study. (50 marks)

3.

3.1 Describe the sources of information on morbidity and mortality in Sri Lanka. (40 marks)

3.2 Outline a study to assess the quality of morbidity and mortality data in a district in Sri Lanka. (60 marks)

4. Describe how you would plan and implement an educational programme aimed at reducing road traffic accidents in an urban area. (100 marks)

5. A newspaper article had the following statement.
"Child abuse is a major problem in District A in Sri Lanka"

5.1 How would you verify this statement. (70 marks)

5.2 Outline briefly the activities that could be carried out to prevent this Problem. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2001

Date: 27th November, 2001 Time: 9.00 a.m. - 12.00 noon

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1.

1.1 List the criteria used to assess the suitability of a disease for screening. (15 marks)

In a village 50,000 people were screened for diabetes with a new screening test. The new test identified 425 positives. The gold standard test identified 550 diabetes patients. Both tests were positive in 350 people.

1.2 What is the prevalence of diabetes in this village ? (15 marks)

1.3 Assess the validity of the new screening test. (50 marks)

1.4 What recommendations would you make to increase the yield of this screening test. (20 marks)

2.

2.1 What is "attributable risk" ? (30 marks)

2.2 A study of tobacco chewing and oral cancer revealed that the attributable risk was 30 percent. How would you utilize this information to implement an effective oral cancer prevention programme in Sri Lanka. (70 marks)

3. Write notes on :

3.1 Confounding bias (25 marks)

3.2 Reliability (25 marks)

3.3 Standardized mortality ratio (25 marks)

3.4 Cold chain in EPI (25 marks)

PART B

4. A 35 year old married male school teacher has been admitted to a District Hospital.

A tentative diagnosis of viral hepatitis (A or B) has been made. The DMO has notified this case to the DDHS/MOH.

Describe the steps you would take in order to prevent further spread of the disease in the

(a) Hospital ward (40 marks)

(b) Community (60 marks)

5. The information given below has been collected in respect of measles in Sri Lanka for the period 1980 to 2000.

Year	**Hospital data****		**Cases notified to the Epidemiological Unit through MOH**	**Notification Rate %**
	No.of cases admitted to hospital	**Rate***		
1980	5032	34.3	N.A.	-
1981	6232	41.5	N.A.	-
1982	13273	87.3	N.A.	-
1983	8171	52.9	N.A.	-
1984	9211	59.0	N.A.	-
1985	8798	55.5	N.A.	-
1986	6235	38.7	N.A.	-
1987	3508	21.5	N.A.	-
1988	2650	15.8	281	10.60
1989	780	4.6	66	8.46
1990	4004	27.6	1315	32.84
1991	1896	11.0	496	26.16
1992	701	4.0	304	43.37
1993	558	3.2	242	43.37
1994	390	2.2	330	84.62
1995	465	2.6	125	26.88
1996	158	0.9	54	34.18
1997	66	0.4	147	222.73
1998	23	0.1	65	282.61
1999	2341	12.5	2341	100.00
2000	4096	82.5	13216	322.66

* Rate per 100,000 population
* * Source: Medical Statistical Unit

- Measles case notification commenced in 1987 October .
- Measles immunizaticn commenced in 1985.

5.1 Comment on the above data (40 marks)

5.2 What further information would you require to assess the impact of the measles immunization programme ? (60 marks)

PART C

6. Discuss the use of fluorides for dental caries control in relation to the prevailing dental caries patterns globally. (100 marks)

7.

   7.1 What is the scientific basis for "minimum intervention approaches" in the control of oral diseases. (70 marks)

   7.2 List the minimum intervention procedures that are available for caries control. (15 marks)

   7.3 What is the public health significance of the minimum intervention philosophy in oral health care ? (15 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2001

Date: 27th November, 2001 Time: 1.30 p.m. - 4.30 p.m.

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1. Discuss the influence of the current socio--demographic profile (characteristics) of mothers, on the health of under five children. (100 marks)

2. Write short notes on the following:

2.1	Complementary feeding	(35 marks)
2.2	Usefulness of pregnancy record	(35 marks)
2.3	Wife battering	(30 marks)

3. Discuss briefly the following:

    3.1 Role of behaviour modification on the nutritional status of the community (50 marks)

    3.2 Role of the Public Health Midwife in the care of the elderly. (50 marks)

PART B

4\.

4.1 Comment briefly on the following findings of the demographic health survey conducted in Sri Lanka in 1987 and 2000 in respect of contraceptive prevalence.

	1987 (%)	2000 (%)
Contraceptive Prevalence	61.5	70.8
Traditional Methods	21.1	21.3
Modem Temporary Methods	10.8	26.4
Permanent Methods	29.6	23.1

(60 marks)

4.2 Indicate the measures you would take to further increase the acceptance of modem temporary methods. (40 marks)

5. Discuss briefly:

5.1 Indirect causes of maternal deaths (50 marks)
5.2 Improving quality of post natal care (50 marks)

PART C

6. Write an account of the changes that are taking place in the roles and functions of dental surgeons in response to worldwide trends in oral disease. (100 marks)

7. Write notes on :
7.1 Risk factors in periodontal disease (30 marks)

7.2 Clinical audit (30 marks)
7.3 The impact of dietary carbohydrates on dental caries (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2002

Date :- 25th November, 2002 Time :- 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all five questions.

1. Discuss briefly

    1.1. the influence of television on dietary practices at the community level. (50 marks)
    1.2. the legal provisions to ensure food safety. (50 marks)

2. Outline the activities that can be carried out.

    2.1. to reduce morbidity and mortality due to home accidents in a rural community in Sri Lanka. (50 marks)
    2.2. for health promotion of female workers in a garment factory. (50 marks)

3.

    3.1. List t'le criteria you will use to prioritise health problems in Sri Lanka. (20 marks)
    3.2. List your priority health problems in Sri Lanka and justify your prioritisation. (20 marks)
    3.3. Describe the specific measures you would recommend to reduce four highest priority problems you have listed. (60 marks)

4. Briefly discuss

    4.1. validity of morbidity information in Sri Lanka. (50 marks)
    4.2. use of focus group discussions in research. (50 marks)

5. Write notes on the following

    5.1. Adverse effects following immunization (AEFI). (30 marks)
    5.2. International Programme of chemical safety (IPCS). (40 marks)
    5.3. Disability adjusted life years. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2002

Date :- 26th November, 2002 Time :- 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions.

1. Design a study to test the hypothesis that a glass of milk per day given in school to 10-12 year old children would lead to increased growth in height and weight. (100marks)

2. Table 1 shows the relationship between age of onset of asthma in children and maternal age at the child's birth. The children were all born in one week in March 2001.

	Mother's age in completed years at child's birth		
Asthma or wheeze reported	15-19	20-29	30+
Never	261	4017	2146
Onset by age 7 years	103	984	487
Onset from 8-11 years	27	189	95
Onset from 12-16 years	20	157	67

2.1. How would you test the hypothesis that asthma in children is related to mother's age at child's birth. (70 marks)

2.2. What other possible explanations are there for these findings.(30 marks)

3. Discuss giving examples

   3.1. Bias in epidemiological study designs (60 marks)

   3.2. Usefulness of regression analysis (40 marks)

4. The prevalence of diabetes mellitus in Sri Lanka has increased over the last 20 years.

   4.1. Discuss the epidemiological / statistical techniques you would use to verify this statement using existing information and data. (60 marks)

   4.2. State the possible reasons for this increase. (40 marks)

5. Write notes on

   5.1. Digit preference (10 marks)

   5.2. Comparative Mortality Index (CMI) (10 marks)

   5.3. Predictive value of a test (30 marks)

   5.4. Attributable risk fraction (20 marks)

   5.5. Proportional Mortality Ratio (PMR) (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2002

Date :- 26th November, 2002 Time :- 1.30 p.m. - 4.30 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each part in a separate book.

PART A

1.

1.1. A study was conducted to find out the association between maternal height and occurrence of still births. Heights of 200 mothers with still births revealed, that 70 had heights of <140 cm, 120 had heights between 140 to 149 cm, 10 had heights $\geq$150 cm. The corresponding numbers of mothers in the control group without still births having the above heights were 60, 120, and 20 respectively.

1.1.1 Calculate the risk associated with maternal heights on the occurrence of still births. (50 marks)

1.2. The prevalence of undetected diabetes in a population to be screened is approximately 1.5% and it is assumed that 10,000 persons will be screened. The screening test will measure blood sugar content. A value of 180 mg percent or higher is considered positive. The sensitivity and specificity associated with this screening are 22.9% and 99.8%. respectively.

1.2.1. Write the two by two table. (10 marks)

1.3.

1.3.1 Calculate the following values:

(a) The percentage of false positives (10 marks)

(b) The percentage of false negatives (10 marks)

1.4.

1.4.1. How many false positives and negatives will occur if 100,000 people are screened ? (20 marks)

2. Write notes on the following :-

   2.1. "Cold chain" in the expanded programme on immunization.(30 marks)
   2.2. Human Development Index. (HDI) (30 marks)
   2.3. Triple health burden in epidemiological transition. (40 marks)

3. Discuss the following :-

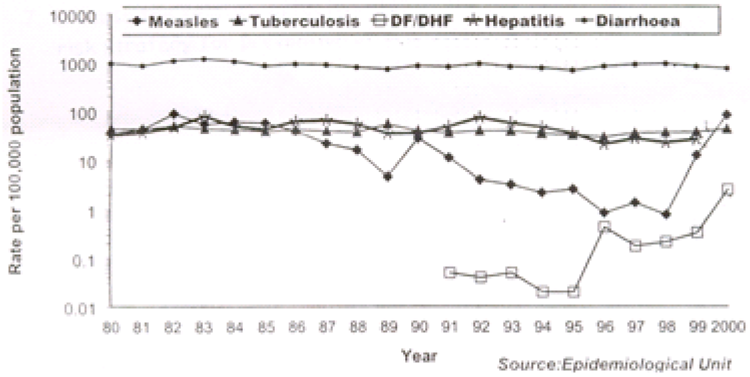
   3.1. Prevention of breast cancer (60 marks)
   3.2. Figure 1 shows the trends in hospitalization for selected diseases in Sri Lanka from year 1980 to 2000.

      3.2.1. Comment on the trends of diseases shown in the above figure. (10 marks)

      Give reasons for the trends of :
      3.2.2. Measles. (10 marks)
      3.2.3. Dengue fever (10 marks)
      3.2.4. Diarrhoea (10 marks)

Figure 1

Trends in Hospitalization for Selected diseases,
Sri Lanka, 1980-2000



Source:Epidemiological Unit

4. A 45 year old water pump operator in a public distribution system has been admitted to a district hospital in Jaffna with a history of severe watery diarrhoea and dehydration of 2 days duration. A tentative diagnosis of cholera has been made. The last confirmed case of cholera in Sri Lanka was reported from Puttlam district in 1999.
   Describe the steps you would take in order to prevent further spread of the disease in the
   4.1. Hospital (30 marks)
   4.2. Community (70 marks)

5. Discuss current control measures of the following diseases :-

   5.1. Malaria. (40 marks)
   5.2. Filaria. (30 marks)
   5.3. Tuberculosis (30 marks)

PART C

6. Write notes on

   6.1. Screening for oral cancer and pre cancer (30 marks)
   6.2. Risk factors in dental caries (40 marks)
   6.3. Need and demand in dental care (30 marks)

7. Discuss the relative effectiveness of the population strategy and high risk strategy for prevention of oral diseases. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2002

Date :- 27th November, 2002 Time :- 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in farts A and C. Answer each part in a separate book.

PART A

1. Discuss briefly

   1.1. Early childhood care and development initiative (50 marks)
   1.2. Impact of school health programme on health promotion (50 marks)

2. Describe briefly the activities involved in training a group of health volunteers to carry out a nutrition intervention programme in their village. (100 marks)

3.

   3.1. Define "maternal death" according to the ICD 9th classification (10 marks)
   3.2. How is the definition in the ICD 10th classification different from the 9th ? (05 marks)
   3.3. Discuss the reasons for under reporting of maternal deaths. (60 marks)

   3.4. What steps would you take to improve the quality of maternal mortality data. (25 marks)

PART B

4. Discuss briefly

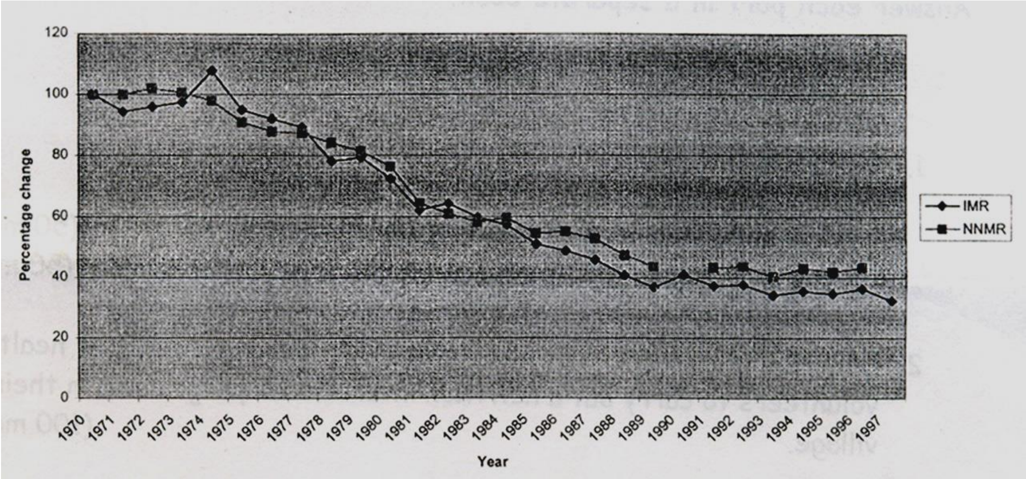
   4.1. Change in pattern of contraceptive prevalence from 1975 - 2001. (50 marks)

   4.2. Steps to improve exclusive breast feeding in Sri Lanka (50 marks)

5. Figure 4.1. gives the relative change in infant mortality rate and neonatal mortality rate over the period 1970 - 1997. The value for 1970 is used as the base figure.

   Discuss possible explanations for the changes observed. (100 marks)

figure 4.1: Relative change in IMR and NNMR 1970-1996 (base=1970)



PART C

6. Describe the general principles involved in carrying out a situation analysis and setting goals when planning oral health services. (100 marks)

7.

   7.1. What do you understand by "Oral Health Promotion" ? (10 marks)

   7.2. List the specific advice pertaining to personal lifestyle that has to be given in the course of oral health education. (30 marks)

   7.3. Discuss the role of social and environmental policy in encouraging

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2003

Date**:** 24th November, 2003 Time**:** 1.30 p.m. - 4.30 p.m.

PAPER I

Answer ALL FIVE questions.

1. Discuss the need for a food and nutrition policy for Sri Lanka. (100 marks)

2. The age structure of the population of Sri Lanka is becoming closer to that of a developed country.

   2.1. Explain the above statement. (25 marks)
   2.2. Describe the factors that influenced these changes. (25 marks)
   2.3. Describe the likely health and social problems due to the above changes. (25 marks)
   2.4. Describe the actions that should be taken to address these problems. (25 marks)

3. Discuss the usefulness and limitations of routinely collected data in the health care system in Sri Lanka, in the assessment of the importance of Non Communicable Diseases (NCDs') as health problems. (100 marks)

4. Discuss the statement" The negative impact of domestic violence on the health status is influenced by gender". (100 marks)

5. Write notes on the following -
   5.1. Influence of mass media on adolescent health (40 marks)
   5.2. DALYs (30 marks)
   5.3. Health promoting schools (30 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2003

Date :- 25th November, 2003 Time :- 9.00 a.m. - 12.00 noon

PAPER II

Answer all five questions.

1.

1.1. Many hair dyes contain substances that are suspected human carcinogens. Consequently, several investigations have attempted to assess the risk of cancer among beauticians and others frequently exposed to hair dyes. One study based on death certificate data found that among a group of cases who died of lung cancer and a set of controls, matched on age, sex and race who died of causes other than cancer, beauticians had six times the risk of dying of pulmonary malignancy.

In a subsequent independent study, based on data from a countrywide cancer surveillance program in which additional information on socio economic and behavioural variables were available, it was found that beauticians had approximately twice the risk of developing lung cancer.

Based on the reported results of these studies, Discuss the interpretation of the association between exposure to hair dyes and risk of lung cancer ?
(60 marks)

1.2 Compare and contrast the likelihood of occurrence of selection and observation bias in case-control and cohort studies. (40 marks)

2\.

2.1. These data relate to an unusual episode that actually occurred.

	Adult Males		Adult Female		Children		Total	
SOCIO ECONOMIC CLASS	DEATH RATE		DEATH RATE		DEATH RATE		DEATH RATE	
	N	%	N	%	N	%	N	%
							Total	
High	173	66.5	144	3.5	5	0.0	322	37.3
Middle	160	91.9	93	16.1	24	0.0	277	58.5
Low	454	87.9	179	45.3	76	71.1	709	75.3
Unknown	875	78.4	23	8.7	0	-	898	76.6
Total	1662	81.0	439	23.5	105	51.4	2206	68.2

a. Describe the epidemiologic features of this episode. (40 marks)

b.

c. Based on the descriptive characteristics, formulate a hypothesis concerning the etiology of this episode. (60 marks)

2.2. In 1985, more women in the U.S. died from lung cancer than from breast cancer. During this time period, there were about 100,000 incident cares of breast cancer and 40,000 incident cases of lung cancer in this population. Comment on the prevalence, average duration, and case-fatality rates of these two diseases. (40 marks)

3\.

3.1. Define discrete and continuous variable and discuss ways of presenting data of each type. (35 marks)

3.2. Discuss the rationale for presenting descriptive statistics versus raw data. (35 marks)

3.3. Why are confidence intervals preferable to *P* values in the interpretation of the role of chance as an alternative explanation for findings ? (30 marks)

4. Breast cancer screening is given wide publicity. Before initiating a breast cancer programme.

    4.1. What criteria would you consider for a good screening test. (30 marks)

    4.2. What factors would you consider before planing a programme island wide. (35 marks)

    4.3. How do you evaluate the screening programme. (35 marks)

5. Write notes on :

    5.1. Demographic transition (30 marks)

    5.2. Ethical issues in randomized control trials (35 marks)

    5.3. Certification of cause of death (35 marks)

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NOVEMBER, 2003

Date: 25th November, 2003 Time: 1.30 p.m. - 4.30 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each Part in a separate book.

PART A

1. Recently the Ministry of Health appointed Medical Officers (Mental Health) in Base and District Hospitals. Describe how you would carry out a study to evaluate the diagnostic and treatment capabilities of the medical officers (Mental Health). (100 marks)

2. A nutritional supplement was tested on 10 children under 5 with 10 children serving as controls. Information on weight of children (in kg) gathered during the study are as follows :-

Children on new supplement		Control children	
Before *	After *	Before *	After *
15.0	17.0	15.2	15.7
12.2	13.7	14.3	15.0
17.3	17.9	13.9	14.5
14.6	16.3	12.4	12.9
17.8	17.7	16.2	16.5
18.2	20.3	17.3	17.1
13.6	14.5	14.5	15.0
16.8	17.5	13.2	13.3
14.9	17.1	15.6	16.0
12.3	13.5	14.7	15.1

* weights of children in kg

2.1. Perform a statistical test to determine if there is a significant weight gain with the new supplement as compared to control children. (60 marks)

2.2. Discuss the results with emphasis on possible sources of bias(40 marks)

3. If you are the District Medical officer in charge of a Base Hospital describe how you would improve the Health information system in your hospital.
(100 marks)

PART B

4. Writes notes on :
    4.1. Relationship between incidence and prevalence. (25 marks)
    4.2. Vector surveillance in Prevention and Control of Dengue fever. (25 marks)
    4.3. Role of the Medical Officer of Health in monitoring Adverse Events Following Immunization (AEFI). (25 marks)
    4.4. Antibiotic Sensitivity Tests in control of Dysentery outbreaks. (25 marks)

5.
    5.1. Recent increase of Leptospirosis in sub-urban areas of Sri Lanka has raised much concern about the environmental issues related to it's occurrence. Describe action that you would take as MOH/DDHS to prevent and control an outbreak of Leptospirosis in your area. (50 marks)

    5.2. Discuss critically the measures taken by the Ministry of Health in response to the recent Severe Acute Respiratory Syndrome epidemic. (50 marks)

PART C

6. Discuss the potential impact of changing demographic patterns in Sri Lanka, on oral health and dental services. (100 marks)

7. "Oral cancer is the most common cancer in Sri Lanka eyen though it is almost totally preventable". Discuss this apparent contradiction. (100 marks)

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POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2003

Date: 27th November, 2003 Time: 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each Part in a separate book.

PART A

1. Rani (5 years) and Kamala (3 years) are living with their grandmother. Their father left them 2 ½ years ago and since then their 26 year old mother has been working as a domestic servant. She visits them only once a month. Discuss giving reasons the health and social problems likely to be encountered by Rani and Kamala. (100 marks)

2. Discuss:

   2.1. health problems associated with the establishment of industrial zones close to residential areas. (50 marks)

   2.2. key strategies to be adopted in improving health status of garment factory workers. (50 marks)

3. Write notes on :

   3.1. importance of classifying pregnancy related deaths according to the ICD 10. (40 marks)

   3.2. prevention of congenital syphilis. (30 marks)

   3.3. Millennium Development Goals. (30 marks)

PART B

4. Lechchami 38 years P5 - C4 is an estate worker. In her last pregnancy she received antenatal care four times at the estate clinic. She was seen by the estate midwife and the estate medical assistant (EMA). She developed pains at 38/52 and delivered a baby girl at home assisted by her mother-in-law. The placenta was retained and she was taken to the district hospital 20 kIn away. On admission it was noted that about four hours had lapsed since delivery. The DMO of the hospital was unable to remove the placenta and she was transferred to a base hospital in the ambulance. She was dead on admission.

   4.1. Discuss the factors that contributed to her death. (50 marks)
   4.2. As Deputy Provincial Director of this district what actions would you take to prevent the occurrence of similar deaths in the future. (50 marks)

5. You are the Medical Officer of Health in a rural area with 65000 population. It has been brought to your notice that every month 4 -5 young women from your area get hospitalized due to complications of induced abortions.

   5 .1. Discuss briefly the reasons for this situation. (40 marks)
   5.2. How would you plan out a suitable programme to address this problem ? (60 marks)

PART C

6. A mother requests dental care for her 6 year old child who has excellent oral health. You are required to deliver a package of preventive strategies so as to ensure that this child will continue to be disease free at 12 years of age. Discuss the relative effectiveness, cost, acceptability, and appropriateness of the various strategies you would adopt. (100 marks)

7. Discuss the methodological factors that may influence the validity of data collected in oral health surveys. . (100 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2004

Date: 6th December, 2004 Time: 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all five (5) questions.
Each part to be answered in a separate book.

PART A

1. "Coronary artery disease in Sri Lanka is a national emergency".

1.1 Discuss critically the information required to assess the accuracy of the above statement. . (50 marks).
1.2 Outline a programme aimed at prevention of coronary artery disease in Sri Lanka. (50 marks)

2 Discuss:
2.1 urbanization and its impact on health. (50 Marks)
2.2 impact of electronic media on life style changes. (50 marks)

3 Discuss:
3.1 the anthropometric indicators used in the assessment of nutritional status in different age groups. (50 marks)
3.2 advantages and limitations of " health promoting schools". (50 marks)

PART B

4.
4.1 Describe briefly the steps in the family planning counselling process. (40 marks)
4.2 Describe the clients rights and providers needs in the framework of counselling. (60 marks)

5. Write notes on the following

5.1 Focus group discussions. (25 marks)
5.2 The sources of injury data in Sri Lanka. (25 marks)
5.3 DOTS (25 marks)
5.4 Mental illness as an emerging health problem in Sri Lanka. (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2004

Date: 7th December, 2004 Time: 9.00 a.m. - 12.00 noon

PAPER II

Answer Parts A and B in separate books.
Answer all five (5) questions.

PART A

1.

1.1 Discuss briefly the effects of global warming on human health. (50 marks)

1.2 As Chief Medical Officer of Health of a Municipal area , how would you present to the Municipal Commissioner the rationale for establishing an "environmental air pollution monitoring system" in his area.(50 marks)

2. Discuss the following:

2.1 Importance of obtaining the occupational history from a patient (35 marks)

2.2 Proportionate Mortality Ratio (35 marks)

2.3 Healthy Worker Effect (30 marks)

3.

3.1 Describe common micro nutrient deficiencies seen in Sri Lanka. (30 marks)

3.2 Discuss critically the different approaches that are available to combat any two of the micro nutrient deficiencies identified above. (70 marks)

PART B

4.

4. 1 What are the differences between a screening test and a diagnostic test. (30 marks)

4.2 Discuss the features you would consider in evaluating a scientific paper reporting a new diagnostic test. (70 marks)

5. Briefly discuss:

5.1 Health financing mechanisms in Sri Lanka at present and possible options for the future. (50 marks)

5.2 Human resource development for Public Health in Sri Lanka (50 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2004

Date: 7th December, 2004 Time: 1.30 p.m. - 4.30 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each part in a separate book

PART A

1.

1.1 What is epidemiology? (10 marks)

1.2 How would you explain the term epidemiology to a lay person ? (15 marks)

1.3 What are the uses of epidemiology ? (25 marks)

1.4 Describe briefly how you would apply your knowledge of Epidemiology in day to day activities as a Medical Officer of Health ? (50 marks)

2. "The critical component of any disaster response is the determination of urgent needs and relief priorities. Rapidly conducted field investigations provide relief managers with objective information about the effects of the disaster on the population."

2.1 Outline how you would carry out such a rapid epidemiological assessment. (50 marks)

2.2 Discuss briefly what factors you would consider as important in minimizing health risks. (50 marks)

3. A Psychiatrist hypothesizes that men who abuse drugs are more likely to commit rape than men who are not drug abusers. A case-control study was conducted to test this hypothesis, selecting as cases a random sample of men serving sentences for rape in the Welikada Prison.

3.1 Briefly outline whether the cases are likely to be representative of the population of all rapists giving reasons for your answer ? (15 marks)

3.2 Identify the exposure variable. (5 marks)

3.3 What difficulties might the investigator encounter in measuring this variable ? (30 marks)

3.4 Suggest a suitable control group for this study giving reasons. (10 marks)

3.5 List potentially confounding variables and suggest methods to control them. (15 marks)

3.6 What are the advantages and disadvantages of using a case-control design to examine the relationship between rape and drug abuse ? (25 marks)

PART B

4. A study was conducted to determine if fasting blood sugar levels among 30 doctors in Sri Lanka was higher than the national average. The mean fasting blood sugar level of the doctors was 120 mg% with a standard deviation of 10 mg%. The national average obtained from the same country-wide survey of 3000 adults was 115 mg% with a variance of 50 mg%.

4.1 Are the two populations independent ? Give reasons for your answer. (10 marks)

4.2 Write the hypotheses to be tested. (15 marks)

4.3 Carry out a statistical test to test the above hypothesis. (50 marks)

4.4 Interpret your findings (25 marks)

Percentage points of the Standard Nonnal Distribution

Z	p (2-sided)
1.00	0.6827
1.65	0.9000
1.96	0.9500
2.33	0.9800
2.54	0.9900

Percentage points of the t-distribution

Degrees of freedom	p (2-sided)				
	0.80	0.90	0.95	0.98	0.99
25	1.316	1.708	2.060	2.485	2.787
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750
	1.282	1.645	1.960	2.326	2.576

5. Write notes on :

5.1 Infection control in a hospital. (50 marks)

5.2 Measures that can be taken to prevent new diseases entering the country. (50 marks)

PART C

6. Discuss the strengths and limitations of the World Health Organization "Basic Methods for Oral Health Surveys". (100 marks)

7.

7.1 What is the evidence for implicating sugar as a cause of dental caries. (50 marks)

7.2 Discuss the various population strategies that may be implemented for the control of sugar consumption. (50 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2004

Date: 8th December:- 2004 Time: 9.00 a.m. -12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1. Discuss the need for the Early Child Care and Development (ECCD) program in Sri Lanka. (100 marks)

2. Write notes on

   2.1. The Child Health Development Record as a tool for improving the growth and development of children under five. (30 marks)

   2.2. Prevention of dental diseases among school children. (40 marks)

   2.3 How you would differentiate between late maternal deaths and reproductive age female deaths. (30 marks)

3. Discuss the following:
   3.1. Role of community participation in preventing maternal deaths. (50 marks)
   3.2 The factors you would consider before introducing a new vaccine to the EPI schedule. (50 marks)

PART B

4. National maternal mortality review for 2003 in district "A" revealed that unmet need for family planning accounted for 45% of the maternal deaths. As the Medical Officer Maternal and Child Health (MOMCH) of the district how would you plan a program to address this problem. (l00 marks)

5.

5.1 Discuss the role of the husband in postpartum care. (40 marks)

5.2 "Well women clinics could be utilized to provide many reproductive health services for women" discuss this statement. (60 marks)

PART C

6. Write notes on

6.1 The common risk factor approach. (40 marks)

6.2 Prevalence of edentulousness. (30 marks)

6.3 Shortcomings of dentist to population ratios. (30 marks)

7. Discuss the potential impact of economic globalization on oral health. (100 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2005

Date: 7th December, 2005 Time: 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all five (5) questions.
Each question to be answered in a separate book.

1. The table below summarises data from a study of plasma magnesium in insulin dependant diabetics and a control group of non-diabetics selected to include a wide age range. Plasma magnesium levels follow a Normal distribution.

Table : Plasma magnesium in insulin dependent diabetics and healthy controls.

Category	Number	Mean m.mol/L	Standard Deviation m.mol/L
Insulin dependent diabetics	227	0.719	0.068
Non-diabetic controls	140	0.810	0.057

1.1. Calculate the range of values which would include 95% of plasma Magnesium measurements for the control population. (10 marks)

1.2. What proportion of insulin dependent diabetics would lie within the range Identified in 1.1. (10 marks)

1.3. Find the standard error of the mean plasma magnesium levels for each Group. (10 marks)

1.4. Find a 95% confidence interval for the mean plasma magnesium in the healthy population. (10 marks)

1.5. Explain the difference between the two values calculated in 1.1 and 1.4 (20 marks)

1.6. Is there any evidence that diabetics have lower plasma magnesium than non-diabetics in the population from which the data come ? (40 marks)

2. Discuss the information required to develop a comprehensive plan for health and social welfare for the disabled in a province in Sri Lanka. (100 marks)

3. Write briefly on :

   3.1. Qualitative methods of data collection in health research. (60 marks)

   3.2. Communication for Behavioural Impact (COMBI) for the prevention and control of dengue. (40 marks)

4. Describe a programme you would implement to improve the health of the elderly in a district. What changes would you suggest to the existing health services to implement your programme. (100 marks)

5. Write notes on

   5.1. Proportional mortality rate (25 marks)
   5.2. Disability adjusted life years (25 marks)
   5.3. Life table (25 marks)
   5.4. Selection bias (25 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2005

Date: 8th December, 2005 Time: 9.00 a.m. – 12.00 noon

PAPER II

Answer each question in a separate book.
Answer all five (5) questions.

1. A case control study was carried out to investigate the relation of Body Mass Index (BMI) and Waist to Hip Ratio (WHR) to the risk of Myocardial Infarction (MI). There were 1200 cases and 1200 controls. The number of subjects with high WHR among cases and controls were 950 and 800 respectively. The number of subjects with high BMI among cases and controls were 700 and 600 respectively.

   1.1. Present these results in 2X2 tables. (20 marks)
   1.2. Determine whether WHR or BMI has a stronger association with MI. (20 marks)
   1.3. List 3 statistical tests you would use to analyse this data (You don't have to do the analysis). (10 marks)

   1.4. Can either WHR or BMI be used as a useful screening test to identify people at increased risk of MI. ? Give reasons for your answer. (20 marks)
   1.5. Calculate and comment on the contribution of WHR and BMI to population attributable fraction. (30 marks)

2.
   2.1. Describe briefly the stages and models of the epidemiologic transition. (40 marks)
   2.2. Discuss the factors that have contributed to the epidemiologic transition in Sri Lanka. (60 marks)

3. As a MOH of an area prone to natural disasters, describe briefly the plan of action for disaster preparedness. (100 marks)

4. Write notes on :

   4.1. Health Insurance (30 marks)
   4.2. Sexual harassment at work (30 marks)
   4.3. Ethical issues in Public Health Interventions (40 marks)

5. Discuss critically :

   5.1. Reasons for the current status regarding road traffic accidents in Sri Lanka. (50 marks)

   5.2. The status of occupational health services in Sri Lanka. (50 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
DECEMBER, 2005

Date: 8th December, 2005 Time: 1.30 p.m. - 4.30 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each part in a separate book

PART A

1. The cardiologist in a Provincial General Hospital has reported an outbreak of acute myocarditis among adults. You have been requested to investigate the outbreak.

   1.1. How would you establish the diagnosis and the existence of an outbreak ? (30 marks)

   1.2. What are the possible risk factors. (10 marks)

   1.3. Describe briefly a methodology for the study of possible risk factors. (30 marks)

   1.4. Plan a follow up mechanism for the cases reported in this outbreak. (30 marks)

2. Discuss the issues that public health authorities in Sri Lanka would encounter in the event of the appearance of a human case of avian influenza. (100 marks)

3. Discuss the usefulness of the following registers/returns/reports to improve the Public Health Services in Sri Lanka.

   3.1. Ward Notification Register (30 marks)

   3.2. indoor Morbidity/Mortality register (30 marks)

   3.3. Weekly Epidemiological Report. (40 marks)

PART B

4. Discuss briefly, the usefulness of

    4.1. Different indicators that would be used in evaluating the national Poliomyelitis eradication initiative (50 marks)

    4.2. Issues related to maintaining the success already achieved in Sri Lanka. (50 marks)

5. Discuss the changing trends and patterns of common vector borne diseases in Sri Lanka giving reasons for observed changes. (100 marks)

PART C

6. Write an account of the changing role of dental auxiliaries as valued partners within the health care team. (100 marks)

7. Write notes on :

    7.1. Formulating global goals for oral health (30 marks)

    7.2. The changing pattern of tasks in oral health care (40 marks)

    7.3. Oral cancer screening (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION DECEMBER, 2005

Date: 9th December, 2005 Time: 9.00 a.m. – 12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each question in a separate book

PART A

1. A 26 year old teacher in government service who is newly married plans to have a baby after 2 years.
   Outline the services/benefits available to this young couple from the health and other relevant government sectors until the time she delivers a baby and the baby is 3 months old. (100 marks)

2. Write notes on :

   2.1. Uses of the Eligible Family Register. (40 marks)
   2.2. Life skills education for school children. (30 marks)
   2.3. Role of dental therapists in the school health programme. (30 marks)

3. Discuss how you would re-establish field maternal and child health services in a Medical Officer of Health (MOH) area in the Southern Province which was completely destroyed by the tsunami. (100 marks)

PART B

4.

   4.1. Discuss the health problems of children under 18 years of age left behind by Sri Lankan mothers employed in the Middle East. (60 marks)

   4.2. Outline a plan to address these problems in children under 5 years of age in a Medical Officer of Health (MOH) area. (40 marks)

5. Discuss briefly :

   5.1. Preventing maternal deaths due to heart disease complicating pregnancy. (50 marks)

   5.2. Baby friendly hospital initiative. (50 marks)

PART C

6. Critically assess the indices used in epidemiological surveys of dental caries. (100 marks)

7. Discuss the relative value of the different modalities of fluoride use in the Context of prevailing global caries patterns. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2006

Date: 27th November, 2006 Time: 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all five (5) questions.
Each question to be answered in a separate book.

1. Sri Lanka has experienced severe torrential rains during the past few weeks. You are the MOH of an area affected floods. Describe the actions you Would take in this situation. (100 marks)

2. Sri Lanka has poor data on perinatal mortality.

   2.1. List the sources of perinatal mortality data at a district level in Sri Lanka. (20 marks)
   2.2. Describe how you would set up an information system within the district necessary to plan a programme for reduction of perinatal mortality. (80 marks)

3. Write notes on the following.

   3.1. Cancer Registry (30 marks)
   3.2. Usefulness of regression analysis (30 marks)
   3.3. Current demographic profile of Sri Lanka. (40 marks)

4. In a group of adult malarial patients a new schizonticidal drug was tested against chloroquine sulphate in equivalent doses, with particular reference to its speed of action. The criterion of success for the purposes of the trial is complete clearance of all asexual parasites from the blood within 36 hours, as judged by a thick film examination. The results of the trial are given in Table I.

Table I : Comparison of 36 hour clearance of asexual parasites from blood between chloroquine sulphate and new schizonticidal drug.

Drug	Toal number of cases	Number of cases with 36 hour clearance
Chloroquine sulphate	184	129
New drug	103	80

4.1. Calculate the proportion of cases with 36 hour clearance for each of the two drugs. (10 marks)

4.2. Apply a statistical procedure and comment on the results. (40 marks)

4.3. Discuss the methodological features of the trial that you would take Into consideration in interpreting the findings. (50 marks)

5. Table 2 shows the results of a study to validate urine glucose testing.

Table 2 : The results of a validation study of urine glucose testing for diabetes against the glucose tolerance test.

	Glucose tolerance test		
Results of urine test for Glucose	Diabetes + ve	Diabetes - ve	Total
Glucose present	6	7	13
Glucose absent	21	966	987
Total	27	973	1000

5.1. Calculate and comment on the properties of the above test ? (show all your calculations) (60 marks)

5.2. Outline how would you evaluate a population based screening programme for diabetes mellitus using the urine glucose test ? (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2006

Date: 28th November, 2006 Time: 9.00 a.m. – 12.00 noon

PAPER II

Answer each question in a separate book.
Answer all five (5) questions.

1. Discuss briefly the following :

   1.1. Sampling method to be used in a prevalence survey of substance use among school children in a district. (30 marks)
   1.2. Ethical issues in the above study. (30 marks)
   1.3. Selection of subjects for a study on risk factors for STI among Middle level workers in the tourist industry. (40 marks)

2.

   2.1. 'Alcoholism is a major public health problem in Sri Lanka'. List the information and the sources of such information to justify this statement. (30 marks)
   2.2. Explain how you would initiate a national level programme to control This problem. (70 marks)

3. An international study on the epidemiology of chronic obstructive pulmonary disease (COPD) reported that the prevalence of COPD among a simple random sample of men aged 40 years or older living in Mexico City was 11.0% with a SE of 1.7% (95% CI 7.6% to 14.4%).

   3.1. Explain the meaning of 'SE of 1.7%'. (20 marks)
   3.2. Explain the meaning of '95% CI 7.6% to 14.4%'. (20 marks)
   3.3. Name the two distributions used to calculate the SE and the CI ? (10 marks)

3.4. How would the confidence interval change if 90% limits were used ?
(10 marks)

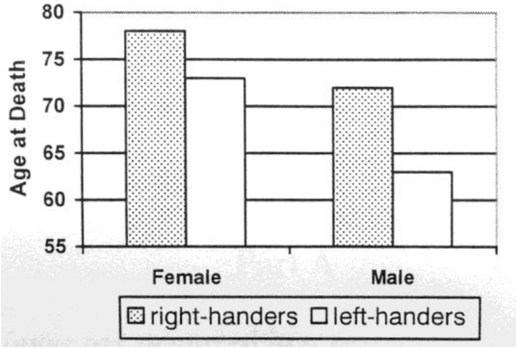
3.5. In the same study 80 out of 442 men aged 40 years or older living in Sao Paulo were found to have COPD. Determine whether there is a real Difference in the prevalence of COPD between the two cities.
(40 marks)

4. Compare and contrast :

4.1. Information Education Communication (IEC) and Behaviour Change Communication (BCC). (30 marks)
4.2. Monitoring and Evaluation. (30 marks)
4.3. Interviewer administered questionnaire and self administered questionnaire. (40 marks)

5. Two researchers investigated the association between handedness and lifespan and reported their findings in the New England Journal of Medicine in 1991. They obtained 2000 recent death certificates from registry officers and contacted the next of kin by post to get information about handedness of the deceased and received 987 usable responses (495 about males and 492 about females). They found a statistically significant ($p<0.0001$) difference in the age at death between right handed subjects and left handed subjects. Figure 1 was taken from their report.

Figure 1 ; Age at death as a Function of Handedness and Sex.



5.1. Describe and comment on figure 1. (30 marks)
5.2. Describe briefly the shortcomings in this study. (30 marks)
5.3. Outline a more effective study to investigate this association.
(40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2006

Date: 28th November, 2006 Time: 1.00 p.m. - 4.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each part in a separate book

PART A

1. An outbreak of fever has occurred in a few districts of Sri Lanka.

   1.1. Explain how would you investigate the fever outbreak ? (40 marks)

   1.2. Plan a mechanism for case reporting. (30 marks)

   1.3. Outline the action you would take to control the outbreak. (30 marks)

2. " Provision of occupational health services in Sri Lanka is unsatisfactory".
   Justify the statement with supporting information. (100 marks)

3.
   3.1. Describe the notification system in Sri Lanka. (50 marks)

   3.2. List the new diseases that have been included n the notification System. (10 marks)

   3.3. Explain the importance of including these diseases. (40 marks)

PART B

4 Sri Lanka has a successful EPI programme. Recently changes have been Introduced to the programme. Discuss the reasons for the following Changes;

4.1. Open Vial Policy (30 marks)

4.2. Cold chain monitoring (40 marks)

4.3. Monitoring of Adverse Events Following Immunization (AEFI) (30 marks)

5. A 17 year old boy has been knocked down by a bus. He has lacerated Wound and a fracture of the leg. Discuss the issues relevant to prevention In this situation. (100 marks)

PART C

6. Describe the risk factors for oral cancer indicating their relative importance In parts of the world where the disease has a high incidence. (100 marks)

7.

7.1. List the three most commonly used ways of estimating oral health manpower requirements ? (15 marks)

7.2. Discuss the principal advantages and disadvantages of the methods you have listed. (85 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2006

Date: 29th November, 2006 Time: 9.00 a.m. - 12.00 noon.

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B.
Community Dentistry candidates should answer all five questions in Parts A and C.
Answer each question in a separate book

PART A

1. It is reported that there is an increase in the number of single women becoming pregnant in a district.
   Discuss the social, economic and health issues arising from this trend. (100 marks)

2. Discuss the following :

   2.1. Importance of addressing adolescent health problems within the school health programme. (50 marks)

   2.2. Developmental screening of children under five years of age.(50 marks)

3. Develop an action plan to achieve a 30% reduction in under weight among pre school children in a MOH area of the Monaragala District. (100 marks)

PART B

4. The following data were presented by a Medical Officer of Health at Quarterly review meeting.

Population of area	125,000
Eligible families under care	20,510
Current users of modern family planning methods	8,220
Couples with unmet FP needs	3,160
Teenage pregnancy rate	12%

4.1. Calculate relevant indicators. (15 marks)

4.2. Comment on the performance based on these indicators. (35 marks)

4.3. Discuss the actions you would take to improve service delivery in the area. (50 marks)

5. A prime mother who delivered her first baby a week ago by normal vaginal Delivery (NVD) presents with fever and breast engorgement to the MOH.

5.1. List the possible causes of fever. (20 marks)

5.2. How would you manage this mother. (80 marks)

PART C

6. Write notes on :

6.1. Dietary recommendations for prevention of oral disease. (30 marks)

6.2. Indices of malocclusion (40 marks)

6.3. Benefits of Community Water Fluoridation (30 marks)

7. Discuss the preventive and health promotion approaches for the control of Periodontal diseases. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2007

Date: 26th November 2007 Time :- 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all five (5) questions.
Each Question to be answered in a separate book.

1.

1.1. How would you classify water-related diseases. (30 marks)

1.2. Giving examples for each, describe the common water related diseases which are prevalent in Sri Lanka, and indicate measures for their prevention. (70 marks)

2. A community intervention programme to reduce the morbidity and mortality from road traffic accidents (RTA) was conducted in a district in Sri Lanka in 2001. The effectiveness of the programme was evaluated, in 2003, using the information on RT As collected by police stations in the district.

According to the census of 2001, the total population of the district was 80,000; the rate of natural increase was 1.5% per year.

2.1. State the advantages and disadvantages of using police data to monitor the trends in RT A. (20 marks)

2.2. In 2001, 2002 and 2003 the number of RT A deaths reported by the police stations in the district were 75, 60 and 50 respectively. Using this data calculate the death rate for RTA for each of the three years and discuss the results. (50 marks)

2.3. What are the biases you need to consider in this evaluation study when interpreting RT A morbidity and mortality rates ? (30 marks)

3.

3.1. How would you classify natural disasters ? (20 marks)

3.2. List the adverse effects arising from natural disasters. (30 marks)

3.3. Discuss the important environmental health measures that require attention when people are rendered homeless. (50 marks)

4. A study to assess the prevalence of *conduct behaviours* among adolescence using the standard *Strengths and Difficulties Questionnaire (SDQ)* was carried out on a randomly selected sample of 210 adolescents (91 males and 119 females). The SDQ identified 26 males and 24 females as having conduct disorders.

4.1. Calculate the gender specific prevalence of conduct behaviour among adolescents. (40 marks)

4.2. Apply a statistical test to determine whether there is a significant gender difference in the prevalence rates. (60 marks)

5. Write notes on :

5.1. Material Safety Data Sheets (MSDS) for chemicals. (25 marks)

5.2 Notification of industrial accidents. (25 marks)

5.3. Pre-employment medical examinations. (25 marks)

5.4. Occupational hazards encountered in hospital laboratories. (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2007

Date: 27th November 2007 Time : 9.00 a.m. -12.00 noon

PAPER II

Answer each question in a separate book.
Answer all five (5) questions.

1. Screening for carcinoma of the cervix is done at field level using Pap smear (Papanicolaou smear). This activity has an average national coverage of 10% due to numerous factors including the delay in reporting by Histopathologists. "Visual inspection with acetic acid" (VIA) is an alternative method to detect cervical abnormalities which does not require histological-assessment. It has the added advantage of immediate therapy if an abnormality is detected.

1.1 Design a study to demonstrate the effectiveness of the VIA method in improving the coverage of cervical cancer screening giving reasons for each methodological aspect chosen. (100 marks)

2.

2.1. Explain the term 'life expectancy at birth. (25 marks)

2.2. What are the social and health implications of a high life expectancy at birth ? (75 marks)

3.

3.1. Describe the measures of effect (40 marks)

3.2. Describe the place of "measures of effect" in causal inference (40 marks)

3.3. List other factors that determine causality (20 marks)

4. Discuss the following:

   4.1. Ethical issues to be ensured when conducting an antenatal clinic. (50 marks)

   4.2. Criteria for ensuring validity of an instrument to assess the mental health status of adolescents (50 marks)

5. It has been observed that the incidence of dengue fever in an area of a Medical Officer of Health is higher than in the previous year. Outline the steps in planning a programme to control the disease. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER, 2007

Date: 27th November 2007 Time : 1.00 p.m. - 4.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

l. An outbreak of hepatitis has been reported from a city in the Central Province of Sri Lanka

1.I .Describe how you would investigate the outbreak ? (30 marks)

1.2. Describe the control measures that should be implemented in the main hospital in the city. (30 marks)

1.3. 0utline the recommendations you would make to the Provincial Health Authority of the Central Province to prevent the occurrence of similar outbreaks in the future. (40 marks)

2.

2.1. Write a justification for including **HIV** infection in the list of notifiable diseases in Sri Lanka. (50 marks)

2.2. Describe the problems you anticipate in implementing this and the measures that can be adopted to overcome these problems. (50 marks)

3. A case control study was conducted to determine the relationship between depression and myocardial infarction (MI) among males. Among 180 cases and 360 controls the numbers of subjects with a previou~ diagnosis of depression were 120 and 150 respectively.

3.1. Ca1culate and interpret a measure of the strength of association between depression and **MI**. (20 marks)

3.2. Determine whether this association is statistically significant or not. (50 marks)

The authors reported that the strength of association between depression and **MI** after adjusting for smoking status was half that of the crude value.

3.3. Explain the possible reason/s for this change in the strength of association. (30 marks)

PART B

4. Based on the surveillance activities carried out at the Lady Ridgeway Hospital for Children, Colombo, it has been estimated that the proportion of ROTA virus diarrhoea among all watery diarrhoea is 23.9%.

Discuss critically the need, usefulness, feasibility and cost effectiveness of introduction of ROTA virus vaccine (Rs. 2,000 per child) in the National immunization programme in relation to the epidemiology of diarrhoeal diseases in Sri Lanka. (100 marks)

5.

5.1. Write notes on

5.1.1. Vaccine efficacy (25 marks)

5.1.2. Place of typhoid vaccination in prevention and control of typhoid fever. (25 marks)

5.2.1. List the major strategies of the National Preparedness Plan of Avian Influenza ? (15 marks)

5.2.2. Describe the different activities that have been planned under each strategy by both the Ministry of Health and the Department of Animal Production and Health. (35 marks)

PART C

6. Write a justification for increasing the number of dental therapists in Sri Lanka and expanding their functions. (100 marks)

7. Write notes on :

   7.1. The changing role of the dentist. (40 marks)

   7.2. The 'Common risk factor' approach in oral health education. (30 marks)

   7.3. Risk factors for periodontal disease. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER, 2007

Date: 28th November 2007 Time :- 9.00 a.m. -12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each Question in a separate book.

PART A

1. Discuss:

1.1. The role of mass media as an agent in behaviour modification. (50 marks)

1.2. Usefulness of '3 delays model' in the prevention of maternal deaths. (50 marks)

2.

2.1. List the population measures that can be used to reduce alcohol related problems in a MOH area, which can be implemented without seeking additional resources from the Ministry of Health. (40 marks)

2.2. Discuss the feasibility of implementing the four most important measures listed by you. (60 marks)

3. Comment on the following statements:

3.1. Pre-pregnancy care will reduce the incidence of teenage pregnancies. (25 marks)

3.2. In Sri Lanka, marked improvements are seen in the nutritional status indicators among pre school children over the past two decades. (25 marks)

3.3. The school health service is a long term strategy to reduce the incidence of non-communicable diseases. (25 marks)

3.4. Gender based violence is a public health problem in Sri Lanka. (25 marks)

PART B

4. Discuss the statement "Infant mortality rate is a good indicator of the level of health and socio-economic development of a country". (100 marks)

5. In a Medical Officer of Health area the annual MCH statisties show that post partum complications are high and 65% of them have been reported as infected episiotomies.

5.1. What preventive actions would you take to reduce the incidence of infected episiotomies in the future ? (50 marks)

5.2. As the MOH of the area what actions would you take to determine the **quality of data** on post partum complications reported by Public Health Midwives. (50 marks)

PART C

6. Discuss the justification for "Minimum intervention approaches" in the control of dental caries. (100 marks)

7.

   7.1. What are the current global trends in dental caries ? (30 marks)

   7.2. Outline the factors that have given rise to these trends. (30 marks)

   7.3. How would a knowledge of these factors affect future strategies for the prevention of dental caries. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER - 2008

Date: 24th November 2008 Time: 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all five **(05) questions.**
Each Question to be answered in a separate book.

1. A 5-year follow up study of 375 managerial workers and 375 clerical workers showed that 15 managerial workers and 6 clerical workers had died from myocardial infarction.

   1.1 Name this study design giving reasons (20 marks)

   1.2 List two strengths of this study (10 marks)

   1.3 Calculate the mortality rates and the relative risk of mortality and interpret the results (30 marks)

   1.4 Discuss the usefulness and limitations of these parameters (20 marks)

   1.5 Calculate the interval estimate of mortality for managerial workers. (10 marks)

   1.6 List two techniques you would use to make the mortality rates of these 2 groups comparable. (10 marks)

2. Discuss

2.1 How you would. obtain a sample of 2000 adolescent school children (12-19 years) from the Colombo district to determine the prevalence of substance use (35 marks)

2.2 A study design you would use to determine the risk factors for stress among postintern doctors (35 marks)

2.3 A sampling method to determine the knowledge and attitude of university students on illegal abortion (30 marks)

3. A randomized controlled crossover study was conducted to determine the efficacy of oral morphine in relieving the sensation of dyspnoea associated with chronic obstructive pulmonary disease. Dyspnoea was measured by a visual analogue (V A) scale with zero as 'no breathlessness' and 100 as 'worst possible breathlessness'. Thirty six (36) patients completed the study
The mean (standard deviation) V A score at the end of treatment period with morphine and placebo were 40 (24) and 50 (24) respectively. The mean (standard deviation) improvement in V A score on morphine compared with placebo was 10(18).

3.1 Perform the most appropriate statistical analysis based on the data provided and interpret the results. (40 marks)

3.2 Outline the different statistical methods that can be used to analyze the above data if you have access to the original data. (20 marks)

3.3 Discuss the advantages and disadvantages of this study design (40 marks)

4. "The declaration of Alma Ata is inappropriate in addressing the health challenges of the 21st century". Comment on the above statement. (100 marks)

5. A case control study was conducted to determine the population attributable risk for oropharyngeal cancer in relation to tobacco and alcohol. Data were collected from 400 cases and 2000 community controls. The number of smokers among cases and controls were 240 and 280 respectively. The number of drinkers among cases and controls were 280 and 700 respectively. Assume that smoking and drinking are independent and that there is no interaction.

5.1 Tabulate this data. (10 marks)

5.2 Of the two exposures determine which has

i a stronger risk for oropharyngeal carcinoma (20 marks)

ii. contributed more to the population burden of oropharyngeal cancer. (40 marks)

5.3 Discuss the advantages and disadvantages of using community controls in the above study. (30 marks)

THE NORMAL DISTRIBUTION

Table 7.1. The Normal distribution

x	$\Phi(x)$	x	$\Phi(x)$	x	$\Phi(x)$
−3.0	0.001	−1.0	0.159	1.0	0.841
−2.9	0.002	−0.9	0.184	1.1	0.864
−2.8	0.003	−0.8	0.212	1.2	0.885
−2.7	0.003	−0.7	0.242	1.3	0.903
−2.6	0.005	−0.6	0.274	1.4	0.919
−2.5	0.006	−0.5	0.309	1.5	0.933
−2.4	0.008	−0.4	0.345	1.6	0.945
−2.3	0.011	−0.3	0.382	1.7	0.955
−2.2	0.014	−0.2	0.421	1.8	0.964
−2.1	0.018	−0.1	0.460	1.9	0.971
−2.0	0.023	0.0	0.500	2.0	0.977
−1.9	0.029	0.1	0.540	2.1	0.982
−1.8	0.036	0.2	0.579	2.2	0.986
−1.7	0.045	0.3	0.618	2.3	0.989
−1.6	0.055	0.4	0.655	2.4	0.992
−1.5	0.067	0.5	0.691	2.5	0.994
−1.4	0.081	0.6	0.726	2.6	0.995
−1.3	0.097	0.7	0.758	2.7	0.997
−1.2	0.115	0.8	0.788	2.8	0.997
−1.1	0.136	0.9	0.816	2.9	0.998
−1.0	0.159	1.0	0.841	3.0	0.999

COMPARING THE MEANS OF SMALL SAMPLES

Table 10.1. Two tailed probability points of the t distribution

D.f.	Probability				D.f.	Probability			
	0.10 10%	0.05 5%	0.01 1%	0.001 0.1%		0.10 10%	0.05 5%	0.01 1%	0.001 0.1%
1	6.31	12.70	63.66	636.62	16	1.75	2.12	2.92	4.01
2	2.92	4.30	9.93	31.60	17	1.74	2.11	2.90	3.97
3	2.35	3.18	5.84	12.92	18	1.73	2.10	2.88	3.92
4	2.13	2.78	4.60	8.61	19	1.73	2.09	2.86	3.88
5	2.02	2.57	4.03	6.87	20	1.72	2.09	2.85	3.85
6	1.94	2.45	3.71	5.96	21	1.72	2.08	2.83	3.82
7	1.89	2.36	3.50	5.41	22	1.72	2.07	2.82	3.79
8	1.86	2.31	3.36	5.04	23	1.71	2.07	2.81	3.77
9	1.83	2.26	3.25	4.78	24	1.71	2.06	2.80	3.75
10	1.81	2.23	3.17	4.59	25	1.71	2.06	2.79	3.73
11	1.80	2.20	3.11	4.44	30	1.70	2.04	2.75	3.65
12	1.78	2.18	3.05	4.32	40	1.68	2.02	2.70	3.55
13	1.77	2.16	3.01	4.22	60	1.67	2.00	2.66	3.46
14	1.76	2.14	2.98	4.14	120	1.66	1.98	2.62	3.37
15	1.75	2.13	2.95	4.07	∞	1.64	1.96	2.58	3.29

D.f. = Degrees of freedom

∞ = infinity, same as the Standard Normal distribution

Table 13.3. Percentage points of the Chi-squared distribution

Degrees of freedom	Probability that the tabulated value is exceeded			
	10%	5%	1%	0.1%
1	2.71	3.84	6.63	10.83
2	4.61	5.99	9.21	13.82
3	6.25	7.81	11.34	16.27
4	7.78	9.49	13.28	18.47
5	9.24	11.07	15.09	20.52
6	10.64	12.59	16.81	22.46
7	12.02	14.07	18.48	24.32
8	13.36	15.51	20.09	26.13
9	14.68	16.92	21.67	27.88
10	15.99	18.31	23.21	29.59
11	17.28	19.68	24.73	31.26
12	18.55	21.03	26.22	32.91
13	19.81	22.36	27.69	34.53
14	21.06	23.68	29.14	36.12
15	22.31	25.00	30.58	37.70
16	23.54	26.30	32.00	39.25
17	24.77	27.59	33.41	40.79
18	25.99	28.87	34.81	42.31
19	27.20	30.14	36.19	43.82
20	28.41	31.41	37.57	45.32

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF' COLOMBO

MSc (COMMUNITY l\1EDICINE /COMMUNITY DENTISTRY) EXAMINATION NOVEMBER-2008

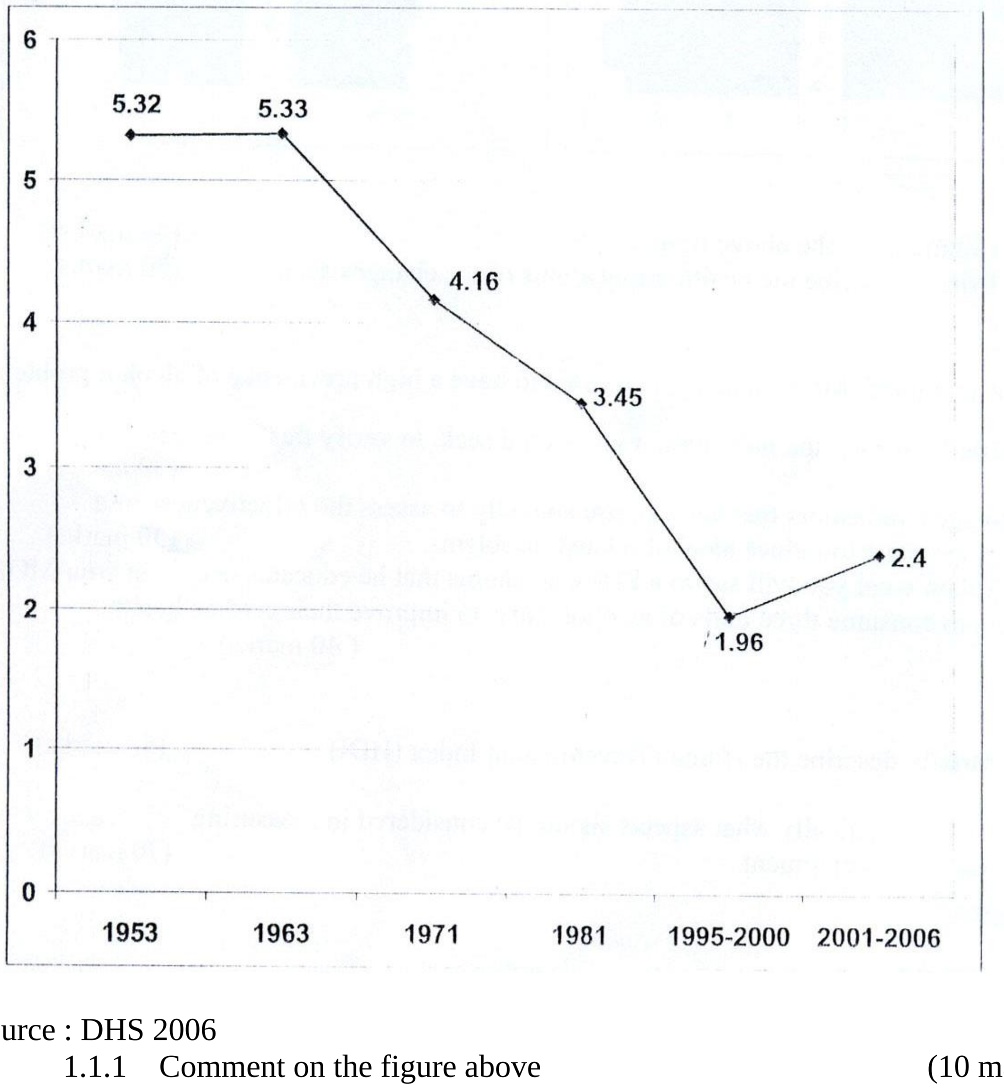
Date: 25th November 2008 Time: 9.00 a.m.- 12.00 noon

PAPER II

Answer all five (05) questions.
Each question to be answered in a separate book.

1

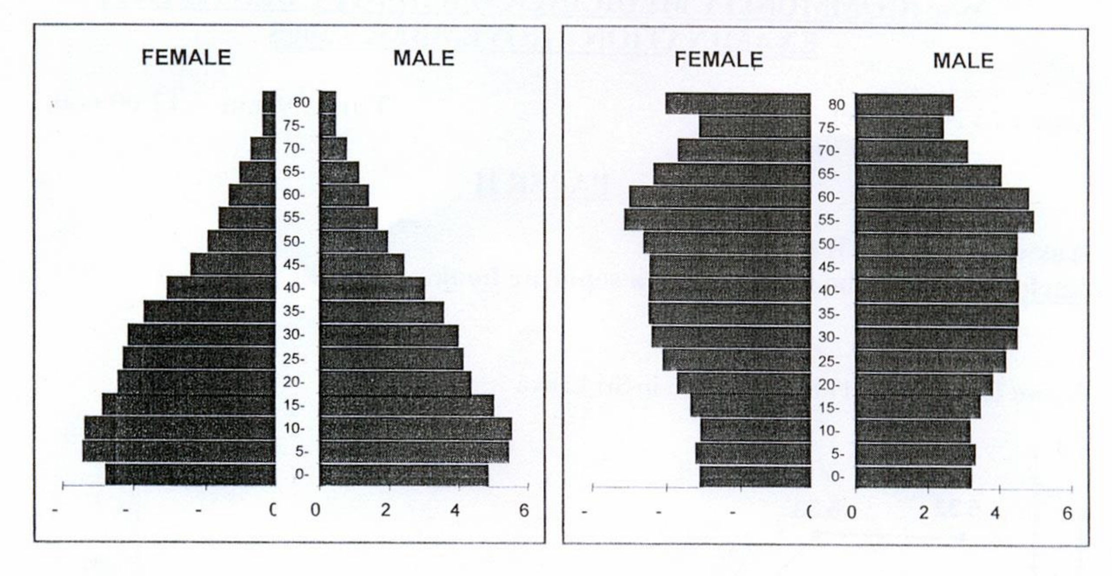
Figure 1: Trends in TFR 1953-2006 in Sri Lanka



Source : DHS 2006

1.1.1 Comment on the figure above (10 marks)
1.1.2 Give possible reasons for what you observe (20 marks)

Figure 2 : Population structure 1991 and projected structure 2041



1.2.1 Comment on the above figures (20 marks)
1.2.2 Briefly describe the health implications of the changes seen (50 marks)

2 You are appointed MOH in an area reported to have a high prevalence of alcohol problems.

2.1 Briefly discuss the information you would seek to verify this statement. (30 marks)

2.2 Suggest indicators that you can use annually to assess the effectiveness of a programme to reduce alcohol related problems. (30 marks)

2.3 Explain what you will say to a PHI who claims that he educates people in your MOH area to consume three units of alcohol daily, to improve their cardiac health (40 marks)

3.

3.1 Briefly describe the Human Development Index (HDI) (30 marks)

3.2 Discuss critically what aspects should be considered in measuring human development (70 marks)

4 Write notes on

4.1 Regression and correlation (20 marks)
4.2 Scales of measurement (20 marks)
4.3 95% Confidence interval (20 marks)
4.4 Criteria for determining causality (40 marks)

5. Table 1 is an excerpt from the crime trends abstract for Sri Lanka.

Table 1. Numbers of grave crimes committed in Sri Lanka

Type of crime	Year		
	2005	2006	2007
Homicide	1221	2045	1663
Cruelty to children	451	362	366
Total crimes	59391	61196	56454

5.1 Describe information available in Table 1 (50 marks)
5.2 Discuss possible reasons for the observed trends (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE / COMMUNITY DENTISTRX}
EXAMINATION NOVEMBER - 2008

Date: 25th November 2008 Time: 1.00 p.m. - 4.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1. Results of a recently published randomised controlled trial of the accuracy of liquid-based cytology (LBC) versus conventional glass slide preparation cytology showed that the percentage of unsatisfactory smears was significantly reduced from 4.1 % in the group randomised to the conventional cytology group compared to only 2.2% in the LBC group.

In this trial, 22,708 women were randomised to LBC and 22,466 to conventional glass slide preparation cytology. Women with mild dyskaryosis or worse on cervical screening were followed up with colposcopy in order to obtain a histological end point. In total, 1337 women in the group randomised to LBC underwent colposcopy. The corresponding number in the group randomised to the conventional glass slide preparation cytology was 661. Table 1 shows data from this trial comparing the histological findings in women referred to colposcopy with mild dyskaryosis or worse for those undergoing LBC or conventional cytology. CIN denotes cervical intraepithelial neoplasia.

Table 1. Comparison of cervical cytology findings and histological end points for liquidbased versus conventional cervical cytology for women with mild dyskariosis or worse.

	Histological end points found at colposcopy		
	Number with grade 1 CIN or worse	Number with grade 2 CIN or worse	Number with grade 3 CIN or worse
Liquid-based cytology	313	99	45
Conventional cytology	184	84	53

1.1 Comment on the information shown in Table 1 and the associated text above. (30 marks)

1.2 Determine if there is a significant difference in the rates of unsatisfactory smears between the two methods. (30 marks)

1.3 Calculate the positive predictive value for
   a) Grade 1 CIN or worse for liquid-based cytology
   b) Grade 3 CIN or worse for conventional cytology (20 marks)

1.4 Explain why it is not possible to calculate the sensitivity of the liquid based cytology.
What further information would you need to calculate the sensitivity.
(10 marks)

1.5 Explain why it is not possible to calculate the specificity of conventional cytology.
What further information would you need to calculate the specificity.
(10 marks)

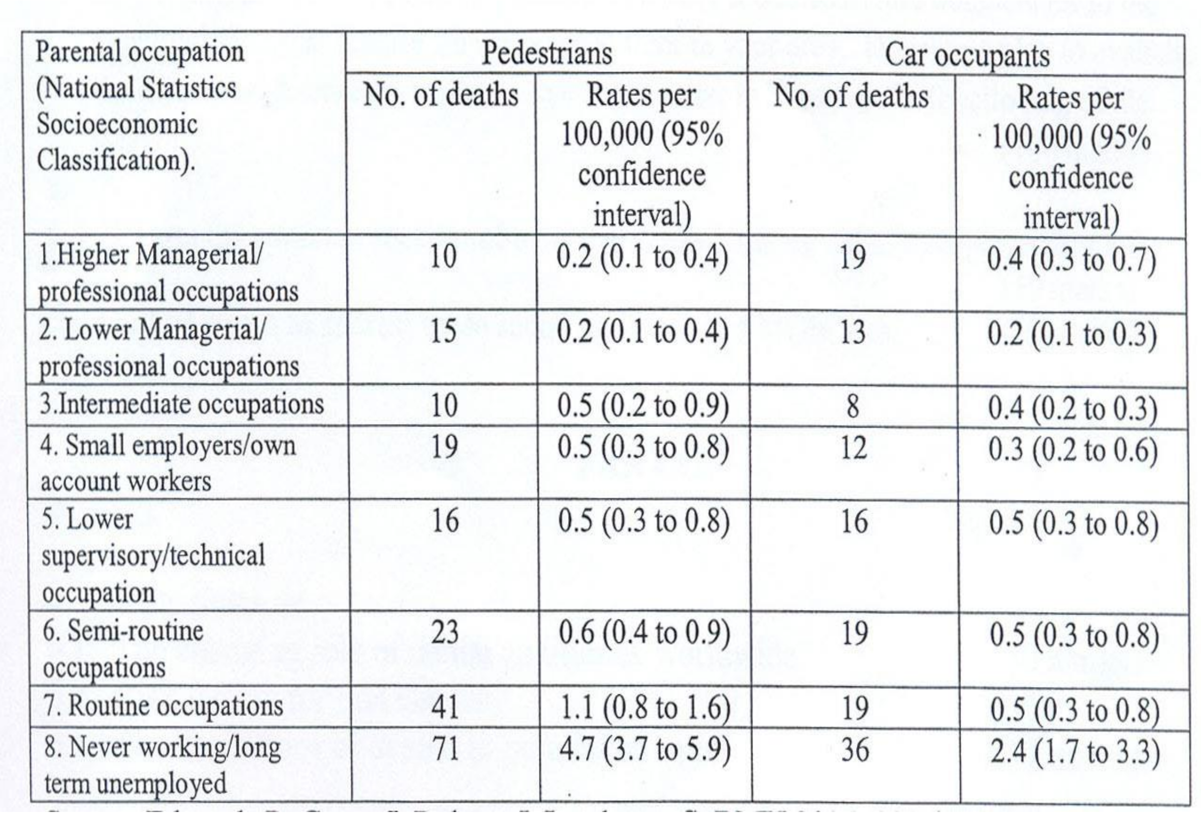
2. Injury is an important cause of death in childhood in many countries. Table 2 below presents information about deaths from injury to pedestrians and car occupants among British children, subdivided by an index of socio-economic status based on parental occupation (National Statistics Socioeconomic Classification).

2.1 Describe what the data in the Table 2 show about deaths of pedestrians and car occupants by socioeconomic groups. (60 marks)

2.2 Identify two additional analyses that you would like performed and briefly explain how they would help you interpret the data more fully.
(20 marks)

2.3 Identify two additional sources of data that might be useful to build a more complete picture of injury rates to children. (20 marks)

Table 2. Rates of death from injury per year per 100 000 children aged 0-15 years by eight socio-economic classes, 2001-3. Figures are numbers of deaths; rate (95% confidence interval).



Parental occupation (National Statistics Socioeconomic Classification).	Pedestrians		Car occupants	
	No. of deaths	Rates per 100,000 (95% confidence interval)	No. of deaths	Rates per 100,000 (95% confidence interval)
1.Higher Managerial/ professional occupations	10	0.2 (0.1 to 0.4)	19	0.4 (0.3 to 0.7)
2. Lower Managerial/ professional occupations	15	0.2 (0.1 to 0.4)	13	0.2 (0.1 to 0.3)
3.Intermediate occupations	10	0.5 (0.2 to 0.9)	8	0.4 (0.2 to 0.3)
4. Small employers/own account workers	19	0.5 (0.3 to 0.8)	12	0.3 (0.2 to 0.6)
5. Lower supervisory/technical occupation	16	0.5 (0.3 to 0.8)	16	0.5 (0.3 to 0.8)
6. Semi-routine occupations	23	0.6 (0.4 to 0.9)	19	0.5 (0.3 to 0.8)
7. Routine occupations	41	1.1 (0.8 to 1.6)	19	0.5 (0.3 to 0.8)
8. Never working/long term unemployed	71	4.7 (3.7 to 5.9)	36	2.4 (1.7 to 3.3)

Source : Edwards P, Green J, Roberts I, Lutchmun S, BMU 2006; 333 (15 July), doi : 10. 1136/bmj. 38875.7574884F (published 7 July 2006)

3. An increasing proportion of the population now travels overseas for recreation, business and family reasons.

   3.1 List 5 health hazards travelers may face. (25 marks)

   3.2 Describe the advice you would give travelers regarding one such hazard. (25 marks)

   3.3 Briefly outline preventive measures you would adopt to minimize one of the health hazards using an example of your choice. (50 marks)

PART B

4. As a Medical Officer of Health (MOH), you have identified some deficiencies in the existing infectious disease surveillance system in your area. Develop a plan to evaluate the infectious disease surveillance system in order to improve the functioning of the system. (100 marks)

5.

5. I Discuss the common social problems that prevail among elderly people in Sri Lanka. (50 marks)

5.2 Outline a plan to address these social problems in a MOH area.(50 marks)

PART C

6. Write notes on :

6.1	The changing role of dental auxiliaries worldwide	(30 marks)
6.2	Risk factors for oral cancer	(40 marks)
6.3	The limitations of dentist to population ratios	(30 marks)

7. Review the evidence for "oral health inequalities" and outline the main explanations for this social problem. (100 marks)

THE NORMAL DISTRIBUTION

Table 7.1. The Normal distribution

x	$\Phi(x)$	x	$\Phi(x)$	x	$\Phi(x)$
−3.0	0.001	−1.0	0.159	1.0	0.841
−2.9	0.002	−0.9	0.184	1.1	0.864
−2.8	0.003	−0.8	0.212	1.2	0.885
−2.7	0.003	−0.7	0.242	1.3	0.903
−2.6	0.005	−0.6	0.274	1.4	0.919
−2.5	0.006	−0.5	0.309	1.5	0.933
−2.4	0.008	−0.4	0.345	1.6	0.945
−2.3	0.011	−0.3	0.382	1.7	0.955
−2.2	0.014	−0.2	0.421	1.8	0.964
−2.1	0.018	−0.1	0.460	1.9	0.971
−2.0	0.023	0.0	0.500	2.0	0.977
−1.9	0.029	0.1	0.540	2.1	0.982
−1.8	0.036	0.2	0.579	2.2	0.986
−1.7	0.045	0.3	0.618	2.3	0.989
−1.6	0.055	0.4	0.655	2.4	0.992
−1.5	0.067	0.5	0.691	2.5	0.994
−1.4	0.081	0.6	0.726	2.6	0.995
−1.3	0.097	0.7	0.758	2.7	0.997
−1.2	0.115	0.8	0.788	2.8	0.997
−1.1	0.136	0.9	0.816	2.9	0.998
−1.0	0.159	1.0	0.841	3.0	0.999

COMPARING THE MEANS OF SMALL SAMPLES

Table 10.1. Two tailed probability points of the t distribution

D.f.	Probability				D.f.	Probability			
	0.10 10%	0.05 5%	0.01 1%	0.001 0.1%		0.10 10%	0.05 5%	0.01 1%	0.001 0.1%
1	6.31	12.70	63.66	636.62	16	1.75	2.12	2.92	4.01
2	2.92	4.30	9.93	31.60	17	1.74	2.11	2.90	3.97
3	2.35	3.18	5.84	12.92	18	1.73	2.10	2.88	3.92
4	2.13	2.78	4.60	8.61	19	1.73	2.09	2.86	3.88
5	2.02	2.57	4.03	6.87	20	1.72	2.09	2.85	3.85
6	1.94	2.45	3.71	5.96	21	1.72	2.08	2.83	3.82
7	1.89	2.36	3.50	5.41	22	1.72	2.07	2.82	3.79
8	1.86	2.31	3.36	5.04	23	1.71	2.07	2.81	3.77
9	1.83	2.26	3.25	4.78	24	1.71	2.06	2.80	3.75
10	1.81	2.23	3.17	4.59	25	1.71	2.06	2.79	3.73
11	1.80	2.20	3.11	4.44	30	1.70	2.04	2.75	3.65
12	1.78	2.18	3.05	4.32	40	1.68	2.02	2.70	3.55
13	1.77	2.16	3.01	4.22	60	1.67	2.00	2.66	3.46
14	1.76	2.14	2.98	4.14	120	1.66	1.98	2.62	3.37
15	1.75	2.13	2.95	4.07	∞	1.64	1.96	2.58	3.29

D.f. = Degrees of freedom

∞ = infinity, same as the Standard Normal distribution

Table 13.3. Percentage points of the Chi-squared distribution

Degrees of freedom	Probability that the tabulated value is exceeded			
	10%	5%	1%	0.1%
1	2.71	3.84	6.63	10.83
2	4.61	5.99	9.21	13.82
3	6.25	7.81	11.34	16.27
4	7.78	9.49	13.28	18.47
5	9.24	11.07	15.09	20.52
6	10.64	12.59	16.81	22.46
7	12.02	14.07	18.48	24.32
8	13.36	15.51	20.09	26.13
9	14.68	16.92	21.67	27.88
10	15.99	18.31	23.21	29.59
11	17.28	19.68	24.73	31.26
12	18.55	21.03	26.22	32.91
13	19.81	22.36	27.69	34.53
14	21.06	23.68	29.14	36.12
15	22.31	25.00	30.58	37.70
16	23.54	26.30	32.00	39.25
17	24.77	27.59	33.41	40.79
18	25.99	28.87	34.81	42.31
19	27.20	30.14	36.19	43.82
20	28.41	31.41	37.57	45.32

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE /COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER - 2008

Date: 26th November 2008 Time: 9.00 a.m. - 12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five questions in Parts A and C. Answer each part in a separate book.

PART A

1. Comment on the following statements.

   1.1 The impact of life skills education for school children will be reflected in morbidity and mortality statistics in the future (30 marks)

   1.2 Legalization of abortion will help to reduce maternal deaths due to septic abortions (30 marks)

   1.3 Sri Lanka is on the right track to achieve MDG 5 (to reduce maternal mortality by 75% between 1990 and 2015 and to achieve universal coverage *of* skilled care at birth by 2015) in 2015 (40 marks)

2. The Ministry of Health has decided to expand NCD screening services to occupational groups with a view to reducing the burden of NCDs. At the initial stage a decision was taken to screen school teachers for common NCDs including common malignancies.

   2.1 As the MOR *of* the area outline a plan to cover school teachers in your area (50 marks)

   2.2 Describe how you would establish a referral system and follow up of NCD cases. (50 marks)

3 Write notes on

3.1	Risk communication	(30 marks)
3.2	Community mobilization	(35 marks)
3.3	Behaviour change communication	(35 marks)

PART B

4 In a MOR area, routine data reported by PRMM showed that couples with unmet need of family planning (FP) is 15% while 43% of couples are using modem FP methods.

4.1 Discuss the FP services in this area. (30 marks)

4.2 Describe how you would validate the above data reported by the PHM. (30 marks)

4.3 As the MOR of the area, describe what actions you would take to improve the situation. (40 marks)

5 In a PRM area, the following data were reported in a nutritional survey.

Anaemia among pregnant mothers - 40%
Pregnant mothers with BMI <18.5 - 38%
Preschool children with moderate under nutrition - 42%
Infants with severe under nutrition - 10%

5.1 Discuss the nutritional status of these target groups. (40 marks)

5.2 As the MOIMCR of the district, prepare a plan of action to improve the nutritional status of mothers . (60 marks)

PART C

6. Critically assess the various preventive options available for the control of dental caries in a population (100 marks)

7.

7.1 What are the criteria for an ideal oral epidemiological index ? (30 marks)

7.2 Discuss the CPITN and DMF indices in relation to the criteria for an ideal oral epidemiological index. (70 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2009

Date : 23rd November 2009 Time : 1.00 p.m. – 4.00 p.m.

PAPER I

Answer all five (05) questions.
Each question to be answered in a separate book.

1.

1.1. A colleague tells you that there is a correlation of r = - 0.61 between the sex of a worker and his or her income. Comment of this statement. (25 marks)

1.2 A group of 1000 pregnant mothers were tested for their anaemia status. The median haemoglobin (Hb) level reported for the group was 13.6 g/dl and the mean was 11.6 (SD = 1.3) g/dl.

1.2.1 Discuss the discrepancy between the mean and the median and its implications. (10 marks)

1.2.2 Comment on the probability of 95% of the population having a Hb level within the range 9.0 - 14.2 g/dl. (15 marks)

1.3 Social class 5 was reported as a significant risk factor for post partum depression (PPD) with an odds ratio of 2.3 (95% CI : 1.0 - 4.0) in an abstract published for an oral presentation. Draw conclusion/s in relation to accepting social class 5 as a risk factor for PPD. (25 marks)

1.4 A survey was conducted to determine the prevalence of diabetes mellitus among adults over 18 years of age in a district. A sample size of 600 was computed and the study participants were selected using the voters' list applying simple random sampling. The funds available were limited. Comment on the advantages and disadvantages of using simple random sampling as a sampling technique under the circumstances described above. (25 marks)

2.

2.1. Comment on the statement, 'Sri Lanka has one of the fastest expanding elderly population in South Asia'. (25 marks)

2.2. Discuss the socio-economic and health implications of the fast expanding elderly population. (50 marks)

2.3. Define the age dependency ratio and its implications. (25 marks)

3. Write notes on –

3.1. Healthy public policy. (30 marks)

3.2. Usefulness of Coefficient of variation. (30 marks)

3.3. Surveillance of emerging diseases. (40 marks)

4. In a population with a 20% prevalence of depression, a new screening tool was observed to have a sensitivity of 100/%, specificity of 90% and a positive predictive value of 71 % when tested with the gold standard.

4.1 Comment on the usefulness of this test for community screening of depression. (25 marks)

4.2 Calculate positive and negative predictive. values if 1000 people with 10% prevalence of depression were screened using the same screening test. (10 marks)

4.3. Comment on the observed values ? (15 marks)

4.4. Discuss the community based services available for mental health in a District. (50 marks)

5. You are a provincial director of health services. It has been brought to your notice that the prevalence of coronary heart disease is high in your province.

Describe how you would develop a programme to address this issue.
(100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2009

Date : 24th November 2009 Time : 9.00 a.m. – 2.00 noon.

PAPER II

Answer all five (05) questions.
Each question to be answered in a separate book.

1. Following measures were used to control errors in research studies. Indicate which type of error could be controlled by each measure.

1.1. In a case control study to assess the risk of tobacco smoking on lung cancer, the control subjects were selected after matching for their age and sex. (15 marks)

1.2. In a case control study, the sample size was determined by using a standard sample size calculation formula. (15 marks)

1.3. In a cohort study, carefully developed inclusion and exclusion criteria were equally applied to the study and control groups, other than the exposure status. (15 marks)

1.4. All mentally unsound and severely ill subjects were excluded from a case control study. (15 marks)

1.5. While measuring the weights of children, all the weighing scales were recalibrated at every 15th measurement. (20 marks)

1.6. In a therapeutic trial, the data collectors were made "blind" towards the treatment types. (20 marks)

2.

2.1. Describe the characteristic of a perfect test (e.g. biochemical). (20 marks)

2.2. Describe how "reference range" is developed for a test. (30 marks)

2.3. A 70 year old woman was admitted to the hospital with a serum creatinine of 0.6 mg/dl (reference range from 0.5 - 1.5 mg/dl) and was treated with gentamycin. On discharge she was found to have a creatinine value of 1.3 mg/dl. Her physician concluded that since her creatinine was within normal range on admission as well as on discharge, she could not have had renal damage secondary to gentamycin.

Discuss critically the conclusion of the physician. (50 marks)

3. Write short notes on –

3.1. Community diagnosis. (30 marks)

3.2. Ethical issues in health research. (35 marks)

3.3. SWOT analysis. (35 marks)

4. Discuss critically

4.1. the impact of indoor air pollution of heath of socially disadvantaged communities. (30 marks)

4.2. the role of unplanned urbanization on the recurrent floods in Colombo. (30 marks)

4.3. confidence interval is a better measure to present results of statistical test than the 'p' value. (40 marks)

5.

5.1. Discuss the use of cost benefit analysis and cost effectiveness analysis in an immunization programme for children. (50 marks)

5.2. Discuss critically health service system for the adolescents. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2009

Date : 24th November 2009 Time : 1.00 p.m. – 4.00 p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.

Community Dentistry candidates should answer all five questions in Parts A and C.

Answer each part in a separate book.

PART A

1. Write notes on :-

   1.1. Climate change and health. (40 marks)

   1.2. Migration and health. (30 marks)

   1.3. Employment and health. (30 marks)

2. You have been invited by one of the major political groupings in the country to help in drafting their manifesto for the forthcoming elections. Your task is to develop a rational five point action plan regarding health to be implemented during the first year.

   List the five points and write a brief justification for each of these points.
   (100 marks)

3. A cohort study was conducted to determine whether infants receiving resuscitation after birth have reduced intelligent quotient (IQ) scores in childhood. Among 10,609 infants who did not require resuscitation at birth 5461 attended for assessment of IQ at 8 years in response to an invitation from the investigators. Of them 354 were found to have low IQ. Among the 873 infants who were resuscitated at birth 426 attended and 45 were found to have low IQ.

3.1. Calculate the risk of low IQ at 8 years in the two groups and perform an appropriate statistical test to determine whether the risk is different in the two groups. (30 marks)

3.2. Explain whether the above finding has resulted from the difference in the response rate in the two groups. (20 marks)

3.3. Calculate and interpret the relative risk. (20 marks)

3.4. Determine the contribution of 'resuscitation at birth' to the overall prevalence of low IQ at 8 years. (30 marks)

PART B

4. Demographic and Health Survey (DHS) conduced in 2006-7 shows that Total Fertility Rate (TFR) has increased to 2.3 from 1.9 reported in 2000.

4.1. Discuss the possible reasons for this increase. (40 marks)

4.2. Describe actions you take as the Medical officer Maternal and Child Health if the Survey has revealed an increased TFR in your district. (60 marks)

5. The district of Nuwara Eliya has reported a low-birth weight rate of 22.0 percent in 2007.

5.1. Compare the above district rate with the national rate. (15 marks)

5.2. List the factors that may have contributed to above rate. (35 marks)

5.3. Outline a programme to be implemented by the Medical Officer of Health (MOH) to reduce the low birth weight rate. (50 marks)

PART C

6. Assuming that you are a Regional Dental Surgeon, describe a practical strategy for the prevention and control of periodontal disease in your region based on the application of current concepts of oral disease prevention. (100 marks)

7. Write notes on :-

   7.1. Public health approaches to oral cancer prevention. (30 marks)

   7.2. The main shortcomings of current systems of dental care. (30 marks)

   7.3. Economic aspects of oral disease. (40 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2009

Date : 25th November 2009 Time : 9.00 a.m. –12.00 noon.

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B.

Community Dentistry candidates should answer all five questions in Parts A and C.

Answer each part in a separate book.

PART A

1. Wide publicity was given to adverse events following immunization in the media. This has jeopardized the national immunization programme. How would you regain the lost popularity of the immunization Programme ? (100 marks)

2. There are speculations that maternal deaths are on the increase during the current year.

    2.1. How do you verify this statement ? (30 marks)

    2.2. If it is increasing what are the likely reasons for the increase considering the events in the recent past ? (40 marks)

    2.3. What action/s would you propose to reverse the trend ? (30 marks)

3. It has been observed that, in a community people are frequently affected by anger, interpersonal violence and dissatisfaction despite availability of material resources.

    3.1. List possible reasons for this situation. (20 marks)

    3 .2. You have been requested to improve the situation. Describe a programme that you would implement giving examples. (80 marks)

PART B

4. Write notes on :-

   4.1. Good pharmacy practice. (30 marks)

   4.2. Public-private partnership for health. (40 marks)

   4.3. International health regulations. (30 marks)

5.

   5.1. List the personal characteristics that a community physician should possess in promoting the health of people. (20 marks)

   5.2. Describe how you train yourself to acquire the appropriate mental characteristics. (50 marks)

   5.3. Describe how you would promote acquisition of these characteristics by people in the community. (30 marks)

PART C

6. Discuss the influence of changing patterns of oral disease on the provision of oral health care. (100 marks)

7. Write notes on :-

   7.1. Socio-behavioural risk factors in dental caries. (40 marks)

   7.2. Salt fluoridation. (30 marks)

   7.3. Advantages and disadvantages of the Community Periodontal Index of Treatment Needs (CPITN). (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2010

Date : 22nd November 2010 Time ; 1.00p.m.- 4.00p.m.

PAPER I

Answer all five (05) questions.
Each question to be answered in a separate book.

1. Compare and contrast

1.1. Quantitative and qualitative research (25 marks)

1.2. Association and causation (25 marks)

1.3. Retrospective and prospective studies (25 marks)

1.4. Cluster sampling and stratified sampling (25 marks)

2.

2.1. There are differences in the maternal mortality and infant mortality statistics as reported by the Registrar General's department, the Family Health Bureau and the Medical Statistics division of the Ministry of Health.
Discuss the reasons for these differences (50 marks)

2.2. Discuss briefly the usefulness of incidence rates of breast cancer by stage of disease and incidence rates of oral cancer, to measure the performance of the cancer control program in Sri Lanka. (50 marks)

3. The nutritional status of adolescent girls in a district was determined using haemoglobin level and skin fold thickness. A random sampling technique was adopted which covered all grama niladhari areas in the district.

3.1. Describe the measures that can be used to summarise this data by grama niladhari division. (50 marks)

3.2. Discuss how these summary measures could be used in identifying gramaniladhari areas suitable for a nutrition intervention program. (50 marks)

4. Table 1 is based on data from Demographic and Health Surveys conducted in Sri Lanka

Table 1 : Fertility trends in Sri Lanka 1987 - 2006

Year	TER	*CEB_{45-49}
1987	2.8	4.9
1993	2.3	3.8
2000	1.9	3.1
2006	2.3	2.6

*CEB_{45-49} – Mean number of children ever born to women aged 45-49

4.1. Define TFR (Total Fertility Rate) (10 marks)

4.2. Describe how the TFR is calculated (20 marks)

4.3. Explain the usefulness of CEB_{45-49} (20 marks)

4.4. Discuss the reasons for the difference between TFR and CEB_{45-49} (40 marks)

4.5. Depict this data graphically (need not be to scale) (10 marks)

5. The case fatality rates reported for the UK, New Zealand and Mexico during the H1N1 pandemic in 2009 were 0.026%, 0.005% and 0.1 % respectively.

5.1. Discuss the possible reasons for the differences in the reported case fatality rates. (50 marks)

5.2. Discuss the factors you would take into consideration before recommending the introduction of a vaccine against H1N1 in Sri Lanka. (50 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2010

Date : 23rd November 2010 Time : 9.00 a.m.-12.00 noon

PAPER II

Answer all five (05) questions.
Each question to. be answered in a separate book.

1. A hospital-based unmatched case control study was conducted to determine the risk factors for bronchial asthma. Cases were diagnosed by a consultant physician. The forced vital capacity (FVC) of asthmatic patients' and the control group was compared.

	Cases	Controls
Mean FVC (L)	2.22	2.56
Sample size	300	300

1.1. Explain the basis on which you would select the control group. (25 marks)

1.2. Describe briefly how you would minimize bias when measuring FVC ? (25 marks)

1.3. List two assumptions you would make before applying a statistical test. (10 marks)

1.4. Giving reasons, select a statistical test to compare the FVC of the two groups. (20 marks)

1.5. List two (02) methods to assess the adequacy of one of the assumptions mentioned in 1.3. (10 marks)

1.6. List two (02) statistical tests you would apply if the above assumptions are not fulfilled. (10 marks)

2. A study was conducted in a MOH area to determine the prevalence of anaemia among pregnant mothers and to assess the association between anaemia and micronutrient supplementation. A sample of 163 pregnant women was selected. It was observed that 40 mothers had anaemia. Multiple logistic regression analysis showed that anaemia was associated with not receiving micronutrient supplementation (Odds ratio 7.2; 95% confidence interval 3.6 to 14.4)

2.1. Name the study design. (10 marks)

2.2. How would you draw a sample for the above study ? (20 marks)

2.3. List the factors to be considered in calculating the sample size to estimate the prevalence. (20 marks)

2.4. Calculate the prevalence of anaemia. (10 marks)

2.5. Calculate and interpret the 95% confidence interval for the prevalence of anaemia. (30 marks)

2.6. Give a reason for applying multiple logistic regression. (10 marks)

3.

3.1. Explain what is meant by global warming and the reasons for this phenomenon. (30 marks)

3.2. Discuss briefly the health and other consequences of global warming relevant to Sri Lanka and how these can be minimized. (70 marks)

4. Discuss the inter-relationship of demographic, epidemiological, nutritional and economic transitions and the health related consequences of these transitions in Sri Lanka. (100 marks)

5. In a recent UN document, Sri Lanka has been ranked 16th in the world for gender equity in the Global Gender Gap Index, way ahead of many developed countries.

5.1. What are the possible factors which could be used to assess gender inequity in a country ? (30 marks)

5.2. Discuss briefly the reasons for the reported low gender inequity in Sri Lanka. (40 marks)

5.3. What further measures could be taken to further decrease gender inequity in Sri Lanka ? (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2010

Date ; 23rd November 2010 Time ; 1.00p.m. – 4.00p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.

Community Dentistry candidates should answer all five question in Parts A and C.

Answer each part in a separate book.

PART A

1.

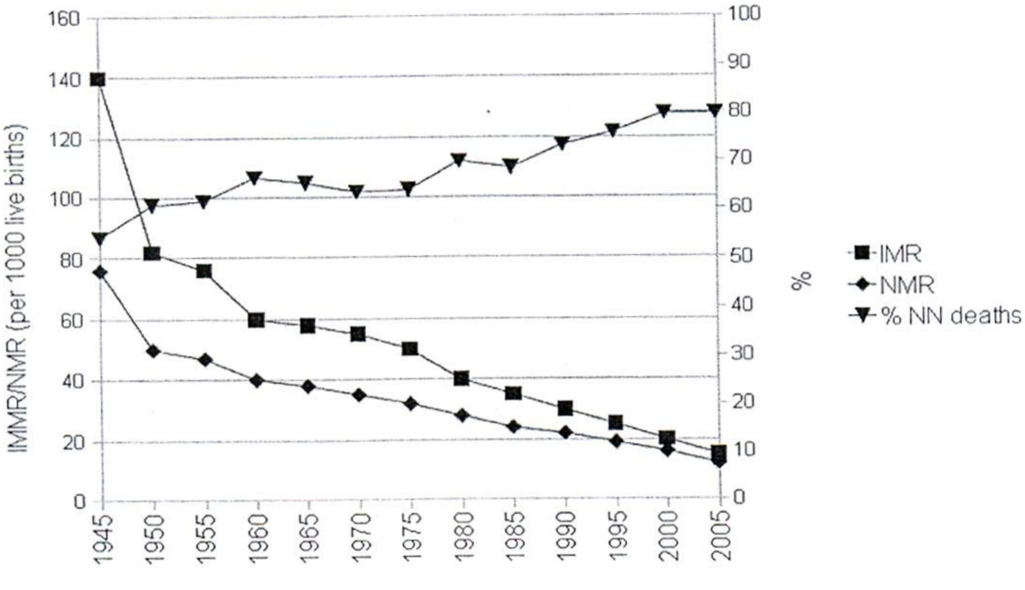

Figure 1 - Infant mortality rate (IMR)/neonatal mortality rate (NMR) and percentage of neonatal (NN) deaths for the period 1945 - 2005

1.1. Discuss the factors responsible for the above trend in infant and neonatal mortality and the trend in the proportion of neonatal deaths. (20 marks)

1.2. The neonatal mortality rate for 2006 as reported by the Registrar General is 7.4/1000 live births. Sri Lanka has the lowest neonatal morality rate in the region according to the World Health statistics of2009 of the WHO. In this scenario is it worthwhile to invest further in improving newborn care in the country ? Discuss giving reasons. (40 marks)

1.3. "Without further improving high tech interventions such as neonatal intensive care units, it would not be possible to further reduce neonatal mortality or morbidity in Sri Lanka". Discuss giving reasons. (40 marks)

2.

2.1. The prevalence of diabetes during pregnancy is on the increase. Testing urine for reducing substances (Benedict's test) is the screening test currently used for screening diabetes in pregnancy. Discuss the pros and cons of introducing blood sugar testing as a screening test for diabetes during pregnancy. (50 marks)

2.2. Ultrasound scanning during the antenatal period is a common practice in today's obstetrics. Discuss the use of antenatal ultrasound scanning as a screening tool in improving maternal care in Sri Lanka. (50 marks)

3. Discuss the following statements:

3.1. In today's context, human papilloma virus (HPV) vaccination for young girls is the best way to prevent cervical cancer among females in Sri Lanka. (40 marks)

3.2. An effective school medical programme has an impact on reducing maternal mortality in Sri Lanka. (30 marks)

3.3. Discontinuation of modern family planning methods are mainly due to myths and beliefs. (30 marks)

PART B

4. It has been reported that the use of illicit drugs among the school children in Sri Lanka is high.

   4.1. How would you plan a study to assess the current situation in a MOH area. (60 marks)

   4.2. What limitations and constrains would you consider while planning this study. (40 marks)

5.

   5.1. Describe the facilities available for rehabilitation of a 35 year old factory worker who had an accidental crush injury to his right foot while at work. (60 marks)

   5.2. Describe the role of health care providers in obtaining compensation for a factory worker who has sustained injuries while at work. (40 marks)

PART C

6.

   6.1. What do you understand by “ oral health inequalities” ? (20 marks)

   6.2. Discuss the different explanations that have been given for social inequalities in oral health (80 marks)

7. Describe the main changes affecting the practice of dentistry in modem times. (100 marks)

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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2010

Date : 24th November 2010 Time : 9.00 a.m.-12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B. Community Dentistry candidates should answer all five question in Parts A and C. Answer each part in a separate book.

PART A

l.

1.1. Discuss the health problems faced by a community that is unable to deal adequately with the solid waste generated within it. (40 marks)

1.2. Describe what is meant by the "Three R strategy" and its importance in dealing with solid waste in a community. (20 marks)

1.3. Describe the wider benefits to the community of having a proper solid waste management system. (40 marks)

2. As part of a targeted nutrition intervention programme the MOH Dimbulla was asked to identify nutritionally vulnerable families. The MOH has requested all PHMs to identify such families based on:

(a) eligible couples register

(b) low Body Mass Index recorded in pregnant mothers who had delivered in the past year.

(c) families who had a newborn with low birth weight in the past three years.

2.1 Discuss the suitability of each of these criteria in identifying the target families. (70 marks)

2.2 Give two recommendations to further improve the method of identifying the most vulnerable families. (30 marks)

3.

3.1. Road traffic accidents are a major public health issue resulting in a high number of fatalities and increased morbidity. It is proposed to build larger and better equipped trauma centres in all hospitals to deal with this problem.
Critically discuss this strategy. (50 marks)

3.2. Identify the key stakeholders in dealing with the problem of road traffic accidents and their respective roles in dealing with this problem. (50 marks)

PART B

4.

4.1. List three features of a "change catalyst" (10 marks)

4.2. Describe how a MOH plays a catalytic role in transforming school canteens in his/her area to provide healthy food items for students and teachers. (50 marks)

4.3. Describe how a professional could develop the skill of being calm and concentrating on work when work is overwhelming. (40 marks)

5.

5.1. The occurrence of frequent outbreaks of diarrhoea and food poisoning have been highlighted in the newspapers. The Director General of Health Services has requested relevant officials to formulate a monitoring and evaluation framework for improving food sanitation in the country.

List out suitable process and outcome indicators in this monitoring and evaluation framework. (50 marks)

5.2. Define the term "DALY". Describe briefly the non-communicable disease trends of Sri Lanka on DALYs. (50 marks)

PART C

6. "Dental caries is declining. Therefore there is no need for further preventive programmes" .
Discuss this statement. (I 00 marks)

7. Write notes on the following:

7.1. Changing patterns of tasks in oral; health. (40 marks)

7.2. Population strategies for control of sugar consumption. (30 marks)

7.3. Impact of oral health on quality of life. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2011

Date : 21st November 2011 Time ; 1.00p.m.- 4.00p.m.

PAPER I

Answer all five (05) questions.
Each question to be answered in a separate book.

1. 'Non communicable diseases (NCD) is a major public health problem in Sri Lanka'

1.1 Discuss the specific information you would use in order to substantiate this statement for one NCD of your choice. (20 marks)

1.2. For the indicators you use state the denominator and the numerator. (10 marks)

1.3. Discuss the strengths and weaknesses of two data sources from which you derived the information. (20 marks)

1.4. Describe how you, as the Medical Officer / Non Communicable Diseases (MO/NCD) would plan and implement a road traffic injury prevention programme in your district. (50 marks)

2

2.1. Name the international agreement signed at the first meeting organized by the World Health Organization in 1986 proposing the action areas for health promotion. (10 marks)

2.2. State the action areas identified for health promotion in the above. (20 marks)

2.3. As a Medical Officer of Health, discuss two health promotion interventions you would use to improve the health of the following in your MOH area.

2.3.1. School children (30 marks)

2.3.2. Garment industry workers. (30 marks)

2.4. List two (02) methods you would use to evaluate the effects of health promotion actions discussed in 2.2. (10 marks)

3. A research study was carried out to test the effectiveness of drug A on survival after myocardial infarction among eligible patients of 30-69 years of age who had suffered an acute myocardial infarction 5-14 days previously. The study recruited 873 patients to the group who received the drug A to be evaluated, and 583 to the group who received a placebo. In a follow up period of '12 months, 64 deaths were reported in the group receiving drug A, and 52 deaths were reported in the placebo group.

3.1. State the study design that should be used. (10 marks)

3.2. State the null hypothesis in words and write the notation. (20 marks)

3.3. Display the above results in 2x2 Table (Contingency Table). (10 marks)

3.4. Draw conclusions on the outcome of the study using epidemiological technique/s. (30 marks)

3.5. State the statistical test you would use to test the hypothesis. (10 marks)

3.6. Comment on the ethical issues in this study. (20 marks)

4. A new immunological test was performed on 50 patients and 50 normal subjects. Selection of the patients and normal subjects was done according to a "Gold Standard Test". Out of the 100 new tests performed 45 were positive, of whom 40 were among the patients.

4.1. Construct a 2x2 table (10 marks)

4.2. Calculate all properties of the new screening test. (30 marks)

4.3. State whether you would recommend the new test as a screening test. (10 marks)

4.4. Justify your answer to 4.3. (30 marks)

4.5. State the other factors that you would consider when recommending screening test. (20 marks)

5.

5.1. In a random sample of 150 school girls aged 14 years, 38 needed treatment for defective vision.

5.1.1. Estimate the percentage of girls who needed treatment for defective vision in the population from which the sample was taken. (10 marks)

5.1.2. Estimate the 95 per cent confidence interval for the true percentage of girls aged 14 years who needed treatment for defective vision. (40 marks)

5.2. The marks of 100 students in a statistics examination are normally distributed with a mean of 58 and a standard deviation of 18. What are the chances that,

5.2.1. A random sample of 36 students will have an average mark greater than 70 ? (25 marks)

5.2.2. An individual student chosen at random will have an average mark greater than 70 ? (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2011

Date : 22nd November 2011 Time : 9.00 a.m.-12.00 noon

PAPER II

Answer all five (05) questions.
Each question to. be answered in a separate book.

1.

1.1. State what is understood by the term "safety" in relation to occupational health ? (05 marks)

1.2. List the occupational hazards that can occur at a construction site due to lack of attention to safety ? (25 marks)

1.3. Describe the measures that should be taken to prevent the hazards stated in 1.2. (40 marks)

1.4. Describe the "Reportable accidents" included under the "Factories Ordinance" (30 marks)

2.

2.1. Discuss the role of judiciary in influencing the policy making process in Sri Lanka. (40 marks)

2.2. Discuss the allocative dimension of public health policies in Sri Lanka in relation to free health care at the point of delivery (60 marks)

3. A study was conducted to determine the effect of exposure to tea dust on the prevalence of respiratory symptoms and the ventilatory capacity among tea factory workers. The study group (SG) consisted of 53 factory workers exposed to tea dust for at least five years, and the control group (CG) of 53 field workers who have never been exposed to tea dust.

The prevalence of chronic respiratory symptoms was obtained by a questionnaire. Indices of ventilator capacity measured included forced vital capacity (FVC in litres), forced expiratory volume in the first second ($FEV_{1.0}$ in litres/minute) and forced mid-expiratory flow rate (FEF in litres/minute). The prevalence of cough was 26.4% (n=14) among SG and 5.7% (n=3) with an odds ratio of 6.0 (95% Cl: 1.5-28.4). The mean values of all three ventilatory indices were lower in the SG and the differences in $F'EV_{1.0}$ and FEF were statistically significant.

3.1. State the study design. (05 marks)

3.2. State the reasons for your answer. (05 marks)

3.3. State the statistical test/s that could be used to assess the association between prevalence of cough and exposure to tea dust. (20 marks)

3.4. Comment on the odds ratio for prevalence of cough. (20 marks)

3.5. Comment on the 95% confidence interval for the above odds ratio. (20 marks)

3.6. State the statistical test/s that could be used to assess the three ventilatory indices ? (10 marks)

3.7 . State your conclusions based on the findings reported above ? (20 marks)

4. Write short notes on :

4.1. Improving mental well- being in elders in the community. (60 marks)

4.2. Leadership for health. (40 marks)

5. A researcher plans to test the usefulness of a community based health promotion package through the Public Health Midwives to improve nutrition of pre-school children in Anuradhapura district. The existing services had not made a significant impact on the nutritional status of many children'

5.1. Describe a suitable study design giving reasons. (30 marks)

5.2. List four indicators that will be used to assess the success of the study. (20 marks)

5.3. Discuss two limitations in demonstrating an advantage of the new package over the existing system (30 marks)

5.4. Briefly describe the steps you would take to address the limitations stated in 5.3. (20 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO
MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION
NOVEMBER 2011

Date ; 22nd November 2011 Time ; 1.00p.m. – 4.00p.m.

PAPER III

Community Medicine candidates should answer all five questions in Parts A and B.

Community Dentistry candidates should answer all five question in Parts A and C.

Answer each part in a separate book.

PART A

1. Control of non- communicable diseases is an emerging challenge to the Ministry of Health in Sri Lanka"

   Discuss the preventive strategies available in the existing Maternal and child Health program which contribute to the control and prevention of non-communicable diseases in Sri Lanka. (100 marks)

2. Write short notes on:

   2.1. Sri Lanka code for Promotion, Protection and Support of Breastfeeding and Marketing of Designated Products (40 marks)

   2.2. Micronutrient supplementation in pre-school and school children. (30 marks)

   2.3. Promotion of oral health in pregnant mothers. (30 marks)

3. It has been reported in the quarterly Maternal and Child Health Return (H 509) that domiciliary care provided to post partum mothers and infants is low in a MOH area.

   3.1. List four (04) important indicators you would use to assess the above situation. (20 marks)

   3.2. For each of the indicators identify, the records and returns you would cross check with to determine the quality of reporting. (40 marks)

   3.3. Discuss the actions you would take as the MOH to improve the quality of data reported by Public Health Midwives. (40 marks)

PART B

4. The current maternal care programme has been established in 1980 and evidence suggests that it needs revision to incorporate new challenges.

   Discuss the areas that need revision in the existing maternal care package. (100 marks)

5.

   5.1. It has been revealed that the cervical cancer screening coverage among the target women in a Medical Officer of Health (MOH) area is low. Outline a programme to improve the coverage of cervical cancer screening in the MOH area. (50 marks)

   5.2. Sri Lanka Demographic and Health Survey (SLDHS) 2006/7 published that contraceptive prevalence for permanent family planning methods is low in the district of Batticoloa. As the Medical Officer Maternal and Child Health of the area, discuss the actions that you would take to increase the use of permanent methods of contraception. (50 marks)

PART C

6. “ Oral cancer is a growing public health problem worldwide”

6.1. Outline the epidemiological evidence for the above statement. (30 marks)

6.2. Describe the public health approaches for prevention of oral cancer. (70 marks)

7.

7.1. List the methods that could be used to estimate dental manpower. (15 marks)

7.2. Discuss the advantages and disadvantages of the different methods mentioned in 7.1. (60 marks)

7.3. Outline the information that would be required to estimate the number of school dental therapists for a district in Sri Lanka. (25 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MSc (COMMUNITY MEDICINE/COMMUNITY DENTISTRY) EXAMINATION NOVEMBER 2011

Date : 23rd November 2011 Time : 9.00 a.m.-12.00 noon

PAPER IV

Community Medicine candidates should answer all five questions in Parts A and B.

Community Dentistry candidates should answer all five question in Parts A and C.

Answer each part in a separate book.

PART A

l.

1. 1. Identify bio-medical wastes from a

   1.1.1. legal perspective. (20 marks)

   1.1.2. practical perspective. (20 marks)

1.2. Describe the major hazards associated with improper disposal of bio-medical waste. (60 marks)

2.

2.1. List the common mental health problems prevailing in Sri Lanka. (20 marks)

2.2. Discuss the actions that have been taken by the Ministry of Health and other stakeholders to address them. (30 marks)

2.3. Discuss critically the issues that limit the provision of satisfactory mental health care services to the people of Sri Lanka. (50 marks)

3. Write notes on:

3.1. One health approach. (40 marks)

3.2. Use of biological agents in dengue control. (30 nrarks)

3.3. Role of primary care providers in reducing mortality of dengue. (30 marks)

PART B

4. Leptospirosis is endemic in Sri Lanka and mostly associated with paddy cultivation. Surveillance data revealed that the incidence of leptospirosis in your MOH area is increasing.

4.1. Describe the preventive and control strategies you would implement in the MOH area. (50 marks)

4.2. Discuss the importance of inter-sectoral collaboration in the control of leptospirosis. (50 marks)

5. ‘Major health problems in the developing countries have been attributed to the consumption of poor quality water'.

5.1. Discuss this statement. (40 marks)

5.2. List the common waterborne diseases in Sri Lanka. (20 marks)

5.3. Describe importance of improving water quality in tire prevention of water borne diseases. (40 marks)

PART C

6.

6.1. Identify the common problems associated with oral health care delivery in the public sector in Sri Lanka. (30 marks)

6.2. As a Regional Dental Surgeon, discuss the factors that you would consider in carrying out an evaluation of the hospital dental services in your area. (70 marks)

7. You are requested to carry out a survey to improve the oral health of Grade 1 school children.

7.1. List two (02) oral health conditions that are commonly found in this group. (10 marks)

7.2. List one (01) index each that you would use to measure the burden of the conditions mentioned in 7.1. (10 marks)

7.3. State the advantages and disadvantages of the indices mentioned in 7.2.. (40 marks)

7.4. Discuss the additional information that would be required to develop a programme to improve oral health status of this group. (40 marks)