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THIRD EXAMINATION FOR MEDICAL DEGREES PART II, OCTOBER 2013
COMMUNITY MEDICINE PAPER I

Answer **ALL FIVE** questions.
Answer each part in a **SEPARATE** book.

Time: 09.00 a.m. – 12.00 noon
Duration : Three Hours

PART A

1.

1.1 1.1.1 Outline the three delays of maternal deaths. (15 marks)

1.1.2 Describe the actions that can be taken to prevent the 3rd delay of a maternal death. (35 marks)

1.2 In year 2007, there were 10,000 people migrated into Sri Lanka and 50,000 people left the country. It was accounted that most of these emigrations were to middle-east countries. The mid-year population of Sri Lanka in 2007 was 18,000,000.

1.2.1 Define and calculate the Immigration Rate. (10 marks)

1.2.2 Define and calculate the Emigration Rate. (10 marks)

1.2.3 Define and calculate the Net migration Rate. (10 marks)

1.2.4 Briefly describe the health problems that a MOH will have to handle in family members of the middle-east migrants. (20 marks)

PART B

2.1 2.1.1 List four characteristics of the standard normal curve. (12 marks)

2.1.2 List four probability sampling methods. (8 marks)

2.1.3 List four measures of central tendency. (4) (12 marks)

2.2 A research has been conducted to find out whether there is a gender difference of eating habits of adults living in the estate sector. A representative sample of 1000 adults (500 men and 500 women) was interviewed by a researcher using a questionnaire. It was found that 200 men and 300 women were engaged in unhealthy eating habits.

2.2.1 Write the null and alternative hypothesis. (8 marks)

2.2.2 Prepare a 2 x 2 contingency table. (20 marks)

2.2.3 Test the null hypothesis at 5% level. (40 marks)

PART C

3.

3.1 A 40 year - old factory worker presented at the ENT clinic with a complaint of poor hearing, which was worsening gradually. He has been working as a machine operator for the last 10 years and often worked long hours for extra income. He had no past history of other medical problems.

A diagnosis of noise-induced hearing loss was made and it was found that the noise level within the factory was 95dB during the working hours.

3.1.1 What are the points in the history that support the above diagnosis? (10 marks)

3.1.2 What are the other health problems you can expect among workers in this factory due to existing work environment? (10 marks)

3.1.3 Describe the measures that can be taken to minimize or prevent the effects of noise pollution for workers. (30 marks)

3.2 Briefly describe,

3.2.1 Pre-placement medical examination. (25 marks)

3.2.2 Healthy worker effect. (25 marks)

PART D

4.

4.1 List the factors influencing vitamin A deficiency in adults. (20 marks)

4.2 Describe how you would make an assessment of the nutritional status of pre-school children in your MOH area. (50 marks)

4.3 Briefly describe the different ways of presenting the data obtained on the above assessment. (30 marks)

PART E

5. You have been asked to investigate the hypothesis that there is a causal association between low birth weight and having elevated blood pressure at the age of 40-50 years.

5.1 Name two suitable epidemiological studies that can be used for this purpose. (10 marks)

5.2 Briefly describe the above mentioned studies using diagrams. (40 marks)

5.3 Describe how you would select the study subjects for the studies you mentioned. (30 marks)

5.4 Name possible confounders /bias you should consider in these studies. (20 marks)

HTM
E low
birth
weight