Date : 16th September 2015   Time : 1.00 p.m. – 4.00 p.m.

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

PART A

1.
-   1.1.   A week-end news paper has reported that deaths due to childhood injuries are increasing in Sri Lanka. Describe how you would verify this statement.   (35 marks)

-   1.2.   Recent police evidence shows that the number of child abuse cases is increasing in a MOH area. As the Medical Officer of Health, outline a plan of action that you would prepare to reduce child abuse in your area.
                    (50 marks)

-   1.3.   Healthy Lifestyle Centres have been established by the Ministry of Health for the prevention and control of non communicable diseases. List three (03) strategies that you would take to improve the utilization of these services.   (15 marks)

2.
-   2.1.   Write short notes on :

    -   2.1.1.   Family planning counselling.   (25 marks)

    -   2.1.2.   Importance of HIV testing among antenatal mothers.
                    (25 marks)

    -   2.1.3.   Sustainable Development Goals (SDG).   (15 marks)

-   2.2.   Describe the notification system of communicable diseases in Sri Lanka using a flow diagram.   (35 marks)

3.

    3.1.   The perinatal mortality rate in Sri Lanka is 11.2 per 1000 births. Discuss how the perinatal mortality of Sri Lanka could be reduced further. (50 marks)

    3.2.   Total Fertility Rate (TFR) in Sri Lanka in 1996 was reported as 1.9. In 2012 it was 2.4. List five (05) consequences which could result from this change. (20 marks)

    3.3.   Media has reported that there is an oil spill noted in the Kelani River above the water intake point to the water purification plant. As the MOH of the area what actions would you take in this regard ? (30 marks)

PART B

4.   Data related to dengue fever in two Medical Officer of Health areas were reviewed to plan future action for prevention and control of dengue fever. The number of new cases of dengue fever reported for the year 2014 in MOH area 'A' and 'MOH area B' was 120 and 150 respectively. The estimated population of these two MOH areas in the same year was 60,000 and 37,500 respectively.

    4.1.   Calculate the measure of disease frequency that can be obtained using the above data for the two MOH areas separately. (20 marks)

    4.2.   Calculate the risk estimate and interpret the results. (30 marks)

    4.3.   List four (04) additional variables that you would seek in order to describe the epidemiology of dengue fever. (20 marks)

    4.4.   On further inquiry, it was found that there were two deaths in each MOH area due to dengue fever in the year 2014. Calculate the relevant mortality indicators and describe the usefulness of each mortality indictor. (30 marks)

5.

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

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

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

Odds radio=0.76 ; 95% Confidence Interval (CI) = 0.62-0.93; x^2= 6.80, P =0.009

Interpret these results.   (40 marks)

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

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

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

                                                (20 marks)

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