Second Year M Phil in Clinical Epidemiology Regular Examinations December 2022

Paper III – Advanced Clinical Epidemiology, Biostatistics and Biocomputing

Time: 3 hrs   **Max marks:100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays: **(10x10=100)**

1. Describe the utility of case-control study design. Compare its benefits and limitations with the cohort study design.

2. Describe the hierarchy of evidence in "evidence-based medicine".

3. Describe the biases involved in observational epidemiological studies.

4. How will you assess and control for confounding in a case-control study.

5. What do you understand by the term Correlation. How is it different from Association.

6. Describe the Doll & Hill criteria for establishing causality in epidemiological studies.

7. What do you understand by the "statistical power" of a study. How is it related to sample size.

8. Describe the principle of Logistic Regression. What do you understand by the term Logit.

9. Describe the principle of statistical analysis for ordinal data.

10. What measures of disease burden will you record to assess the impact of COVID-19 infection in a society.

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