

**QP Code:102601**

**Reg. No.:.....**

**Final M Phil Clinical Epidemiology Supplementary Examinations  
March 2019**

**Paper II – Biostatistics and Biocomputing**

**Time: 3 hrs**

**Max marks: 80**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays:**

**(8x10=80)**

1. Describe the role of biostatistics in clinical epidemiology.
2. Describe the steps involved in computation of F-statistic in a one-way analysis of variance.
3. Define standard error and its role in inferential biostatistics.
4. Describe various types of biases that could occur in a double blind randomised controlled trial and steps to prevent it.
5. With example, describe difference between superiority, equivalence and non-inferiority trial.
6. Describe various methods of randomization in a clinical trial.
7. In a study of 100 persons, it is found that 10 of them are hypertensive. Find out 99% confidence limits for the population prevalence of hypertension, and provide interpretation of the obtained 99% confidence limits.
8. Prevalence of disease in the population is 10%. Both sensitivity and specificity of test is 90%. Using Bayes theorem, compute the probability of disease given test positive result.

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