M.Sc. BIOSTATISTICS EXAMS
FIRST YEAR
PAPER III – STATISTICAL INFERENCE, SAMPLING METHODS AND SAMPLE SIZE

Q.P. Code: 282863

Time: Three hours   **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Minimum variance unbiased estimator and Best linear unbiased estimator.
   b) Cramer-Rao inequality.

2. a) Methods of drawing Simple Random Sampling.
   b) Multiphase and multistage sampling.

II. Write notes on: **(10 x 6 = 60)**

1. Confidence interval for difference of two sample proportions.

2. Explain simple hypothesis and composite hypothesis with example.

3. Test of independence of attributes.

4. Neymen Pearson test of hypothesis.

5. Mann-Whitney test.

6. State Rao-Blackwell.

7. Estimation of sample size for clinical experiments.

8. Systematic sampling and explain when we should not use systematic sampling

9. Stratified Sampling.

10. Discuss the scope and limitations of convenient and judgment sampling in biostatistical analysis.

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