First Year MHA Degree Regular/Supplementary Examinations September 2023
Paper III – Research Methodology & Biostatistics
(Common for 2013 and 2016 Scheme)

Time: 3 Hours　　　　　　　　　　　　　　　　　　　　　　**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*
- *Ordinary calculator and logarithm table may be permitted to the students.*
- *Write SECTION A and SECTION B in separate Answer books (32Pages). Do not mix up questions from Section A and Section B*

QP Code: 123380　　　　**Section A – Research Methodology**　　　　**50**

Essay:　　　　　　　　　　　　　　　　　　　　　　　　　　　**(20)**

1. Explain the different types of research study design with appropriate examples.

Short Essay:　　　　　　　　　　　　　　　　　　　　　　　　**(10)**

2. Write in brief the different types of sampling designs with examples.

Short notes:　　　　　　　　　　　　　　　　　　　　　　　**(4x5=20)**

3. Observation as a method of data collection.
4. Types of data analysis.
5. Scatter diagram and spot map.
6. Scientific research.

………………………………

QP Code: 124380　　　　**Section B – Biostatistics**　　　　**50**

Essay:　　　　　　　　　　　　　　　　　　　　　　　　　　　**(20)**

1. Describe the different measures of dispersion with suitable examples from healthcare. The incubation period of COVID-19 in 10 patients was found to be 14, 13, 11, 15, 10, 7, 9, 12, 8 and 10 days. Calculate the mean, standard deviation, and variance of Incubation period.

Short Essay:　　　　　　　　　　　　　　　　　　　　　　　　**(10)**

2. What do you understand by the term "null hypothesis". How do you test significance of statistical test.

Short Notes　　　　　　　　　　　　　　　　　　　　　　　**(4x5=20)**

3. Paired t test.
4. Coefficient of correlation.
5. Standard deviation.
6. Vital statistics.

****