

**First Year MHA Degree Supplementary Examinations March 2025**  
**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*
- *Simple calculator shall only be permitted*
- *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. Write an essay on the components of a research report, including details on the steps in testing the hypothesis.

**Short Essay:**

**(10)**

2. Explain in detail various methods of primary data collection, stating the advantages and disadvantages.

**Short notes:**

**(4x5=20)**

3. Ogive.
  4. Multistage and Multiphase sampling.
  5. Action research programmes.
  6. Types of tabulation.
- .....

**QP Code: 124380**

**Section B – Biostatistics**

**50**

**Essay:**

**(20)**

1. Following a surgery, doctors assessed the pain among the 10 patients after 48 hours (post-surgery).  
10, 7, 3, 5, 5, 10, 6, 4, 1, 2
  - a) Find the median, mode, mean and mean deviation of the pain scores.  
Comment on the skewness.
  - b) Write a detailed note on birth, morbidity, mortality and fertility rates.

**Short Essay:**

**(10)**

2. Write in detail the null hypothesis, two-sided alternative hypothesis, assumptions and examples for two-sample independent t-test.

**Short Notes:**

**(4x5=20)**

3. Spearman's Correlation.
  4. Spot map and Scattergram.
  5. Interval estimation for mean and proportion.
  6. Linear regression.
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