

QP CODE: 105388

Reg. No:.....

**First Year Master of Optometry Degree Regular/Supplementary
Examinations January 2023**

Research Methodology and Biostatistics

Time: 3 Hours

Total Marks: 80

- *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*

Essay

(20)

1. Classify the probability distribution. What are parametric and non-parametric tests.
Explain their advantages and disadvantages with examples.

Short Essays

(6x10=60)

2. Explain regression and correlation with an example.
3. Define and calculate interquartile range and variance for the following data:
353, 403, 35, 554, 42, 23, 110, 99, 11, 415
4. Distinguish between the following with an example for each:
 - Nominal and ratio scale
 - Cluster sampling and systematic sampling
 - Null hypothesis and alternate hypothesis
5. Define relative measures of dispersion. Find the coefficient of variation of the data:
43, 32, 60, 12, 8, 4, 1
6. Briefly explain the various measures of Kurtosis. Explain the concept of Kurtosis and skewness.
7. Explain qualitative and quantitative research with examples.
