

QP CODE: 105388

Reg. No:.....

**First Year Master of Optometry Degree Regular/Supplementary
Examinations November 2024**

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*
- *The use of a simple calculator is allowed, but using scientific calculator or sharing any calculator is strictly prohibited under any circumstance.*

Essay

(20)

1. Describe the different types of graphs that can be used to present statistical data in graphical representation, using suitable examples.

Short Essays

(6x10=60)

2. Define Epidemiology and state its aims/objectives and types.
3. Define the following:
 - a) Rate
 - b) Ratio
 - c) Proportion
 - d) Incidence
 - e) Prevalence
4. Write in detail about different epidemiological study designs.
5. Discuss about the concept of health and disease and the role of epidemiological triad in disease prevention.
6. Which parametric and non-parametric tests are to be used in below give situations.
 - a) To compare mean/medians of two independent samples.
 - b) To compare mean/medians of two dependent samples.
 - c) To compare mean/medians of three or more samples.
 - d) To examine the relationship between two continuous variables.
 - e) To examine relationship between two categorical variables.
7. What are the different sampling techniques in research studies. What are the advantages and disadvantages.
