

# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Optometry Degree Examination - 05-Jun-2024

Time: Three Hours

Max. Marks: 100 Marks

## RESEARCH METHODOLOGY AND STATISTICS (RS-4)

**Q.P. CODE: 3353**

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

### LONG ESSAYS (Second Question Choice)

**2 x 10 = 20 Marks**

1. Define correlation. Explain the various measures of correlations.
2. Briefly describe the various steps involved in research process.

**OR**

Define epidemiology. Describe descriptive epidemiology along with its methods and uses.

### SHORT ESSAYS (Question No 5 & 10 choice)

**10 x 5 = 50 Marks**

3. Explain the various forms of diagrammatic presentation of data.
4. Define the various measures of central tendency.
5. Write a note on health information system.

**OR**

Mention the common indicators of mortality.

6. Mention the steps involved in testing of hypothesis.
7. Following data represents the waiting time (in minutes) of 11 patients before consultation. Calculate the mean, median and range  
13, 8, 11, 14, 9, 7, 15, 3, 6, 4 and 12
8. Define sampling. Enlist the various sampling techniques and explain any two sampling techniques.
9. Define standard deviation, coefficient and variation.
10. Distinguish between research methods and methodology.

**OR**

Mention the common indicator of morbidity.

11. Define biostatistics and mention its application in health sciences.
12. Describe the characteristics of a normal distribution curve.

### SHORT ANSWER

**10 x 3 = 30 Marks**

13. Validity and reliability.
14. Discrete and continuous variable.
15. Epidemiology.
16. Fertility indicators.
17. Type I and Type II error.
18. Percentile.
19. Skewness.
20. Ratio and proportion.
21. Null and alternative hypothesis.
22. Kurtosis.