

Rajiv Gandhi University of Health Sciences, Karnataka
III Year B.Sc. Optometry Degree Examination – 27-May-2025

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. What is hypothesis? Explain the characteristics to form a good hypothesis
2. What is research? Explain the steps and methods involved in research process

OR

Define Epidemiology. Describe descriptive epidemiology along with its uses

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. Difference between validity and reliability
4. Difference between Cohort study and Cross sectional study
5. Find the mean, median, mode and range for the following list of values –
13, 18, 13, 14, 13, 16, 14, 21, 13

OR

Explain the types and classification of data

6. Explain the types of measurement scales. Illustrate and example for each scale
7. What are the properties of normal distribution?
8. Write a short notes on - a) Proportion b) Incidence c) Prevalence
9. Difference between quantitative data and qualitative data
10. Define probability sampling. What are the types of sampling in statistics
11. What is dependent and independent variables with example
12. Explain epidemiological surveillance

SHORT ANSWER

10 x 3 = 30 Marks

13. What is an alternative hypothesis?
14. What is meant by bias? Different types of bias
15. What is correlation?
16. Define probability sampling
17. Recent study reveals that over usage of gadgets leads to 75.3% of headache, 42% of blurring of eye, 38% of redness of eye, 20% of nausea and 60% of sleepless. Draw a pie chart and bar diagram for this conditions
18. What is morbidity and mortality?
19. Define epidemiology
20. Define skewness and kurtosis with graph
21. Define statistics
22. Difference between primary data and secondary data
