

Rajiv Gandhi University of Health Sciences, Karnataka
III Year B.Sc. Optometry Degree Examination – 29-Nov-2023

Time: Three Hours

Max. Marks: 100 Marks

RESEARCH METHODOLOGY AND STATISTICS (RS-4)

Q.P. CODE: 3353

(Q.P contains two pages only)

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. Given below is the frequency distribution (10 mg/dl intervals) of blood levels – rural village, 1996. Calculate the mean, standard deviation and variance for the given data

Blood lead level (mg/dl)	Frequency
0-9	0
10-19	1
20-29	2
30-39	3
40-49	6
50-59	8
60-69	6
70-79	9
80-89	2
90-99	0
100-110	2
Total	39

2. Define – rate, ratio, proportion, incidence and prevalence

OR

What are the steps involved in research process?

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. Draw a normal curve and point out its characteristics
4. Calculate mean, median, mode of the following data
240, 260, 290, 245, 255, 247, 272, 263, 277 and 251
5. Explain concept of reliability and validity
- OR**
- Merits and demerits of probability and non probability sampling
6. Distinguish between census and survey
7. Explain the properties of various scales of measurements
8. Steps involved in research process
9. What is type I and type II error?
10. Define Inter-quartile range with formula
- OR**
- Explain component and uses of health information system
11. Explain sample registration system (SRS)
12. Define sampling, principle and explain cluster random sampling

SHORT ANSWER

10 x 3 = 30 Marks

13. Give the name of the methods of testing or hypothesis
14. Merits and demerits of interquartile range
15. Define census
16. What do you understand by bar diagram and a sub-divided bar diagram?
17. What are the requisites of reliable data?
18. Skewness and kurtosis
19. Define correlation
20. Role of statistics in research
21. What are random number tables?
22. What is epidemiological triad?
