

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D (I Year Pharm D Post Baccalaureate) / IV Year Pharm-D Degree Examination – 23-Jun-2022

Time: Three Hours

Max. Marks: 70 Marks

BIOSTATISTICS AND RESEARCH METHODOLOGY (OS, RS & RS-2)

Q.P. CODE: 2870 / 2886

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)

2 x 10 = 20 Marks

1. Describe briefly the different interventional study designs.
2. Describe the various types of measures of dispersion and their significance.
3. Discuss in detail about various study designs.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain report writing in research methodology.
5. Describe variance and standard error of mean with suitable example.
6. Discuss the general rules for constructing and labeling a graph? b) Describe the construction of a semi-logarithmic graph with an example?
7. Compare and contrast Nonparametric and Parametric data
8. What are the underlying assumptions of one way ANOVA? Explain under what circumstances ANOVA is the most preferred type of statistical data analysis?
9. Calculate the variance and standard deviation for the following data

Haemoglobin value (gm%)	9.1 to 10.0	10.1 to 11.0	11.1 to 12.0	12.1 to 13.0	13.1 to 14.0	14.1 to 15.0	15.1 to 16.0
Number of individuals	11	14	28	22	16	12	8

10. How will you design a parallel group study?
11. Explain steps involved in research design.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Define bias in clinical study.
13. Role of sample size in calculation of confidence interval
14. Characteristics of normal distribution.
15. Advantages and disadvantages Pie charts.
16. Explain: Range, Interquartile range and Variance
17. Standard Error of Mean
18. One tailed and two tailed tests.
19. Inventory control
20. Inclusion & exclusion criteria
21. Define histogram
