

Rajiv Gandhi University of Health Sciences, Karnataka
IV Year Pharm-D / I Year Pharm D Post Baccalaureate Degree Examination – 05-Nov-2024

Time: Three Hours

Max. Marks: 100

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. Define correlation and regression. What are the different measures of correlation? Explain which measure is used for computing correlation between two quantitative variables.
2. Enlist types of data and explain different measures of central tendency with the help of suitable example.
3. Describe briefly the different observational study designs.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Explain parallel and cross-over study designs.
5. Write a note on a) Randomization b) Objectives
6. Write a note on standard deviation and standard error of mean with suitable examples.
7. How histogram, scattered plot and semi logarithmic plots are useful in presenting data.
8. Write a note on null and alternate hypothesis.
9. Write a note on t-test
10. Write a note on computerized medication order entry.
11. A tablet is produced with labelled potency of 100mg. The standard deviation is known to be 10. What is sample size should be assayed if we want to have 90% power to detect a difference of 3 mg from the target? The test is done at 5% level.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Inclusion and exclusion criteria.
13. Define bias in clinical study.
14. What is case study?
15. What is interventional study?
16. What are the advantages and disadvantages of pie chart?
17. Level of significance.
18. Degree of freedom.
19. What is Type I and Type II errors in hypothesis testing?
20. Define relative risk.
21. Define blinding in clinical study.
