

Rajiv Gandhi University of Health Sciences, Karnataka
IV Year Pharm-D/ I Year Pharm-D (Post Baccalaureate) Degree Examination – DEC-2014

Time: Three Hours

Max. Marks: 70 Marks

BIOSTATISTICS AND RESEARCH METHODOLOGY

Q.P. CODE: 2870

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. Write notes on a) Randomization b) Objectives c) Direct and surrogate end point in clinical studies.
2. What is hypothesis testing? What are different types of hypothesis? How parametric tests are useful to derive inferences by using these hypothesis.
3. Discuss about patient medication profiles and inventory control in hospital pharmacy.

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Write short notes on standard deviation and standard error of mean.
5. Explain different types of graphical representation for quantitative data.
6. Describe how a sample size is determined for simple comparative experiments.
7. Write short note on computerizing the prescription dispensing process.
8. Explain Wilcoxon signed rank test and Mann Whitney U test.
9. Explain the method of Pearson's correlation.
10. Note on interventional studies.
11. In a nutritional experiment 10 patient are fed with nutritional supplements. The gain in weights noted are given as
Patient No 1 2 3 4 5 6 7 8 9 10
Gain in weight 25 10 11 13 12 8 5 13 7 4
Find out whether there is a significant gain in weight due to nutritional supplements or due to chance. (Critical value is 1.833).

SHORT ANSWERS

10 x 2 = 20 Marks

12. What is descriptive and inferential statistic?
13. Discrete and continuous variables.
14. Define bias in clinical study.
15. Pie Chart
16. When is the mean should be considered for best measure of central tendency?
17. For independent measures of mean values between two groups which parametric and non parametric test can be used?
18. What is chi-square test?
19. Incidence
20. Write about prevalence.
21. Power of a study.

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