Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D Degree Examination – MAY 2016

Time: Three Hours   **Max. Marks: 70 Marks**

BIOSTATISTICS AND RESEARCH METHODOLOGY

Q.P. CODE: 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. Explain the statistical inference techniques in hypothesis testing of parametric data.

2. Explain the applications of computers in community Pharmacy.

3. Classify types of data and explain the measures of central tendancy.

SHORT ESSAYS (Answer any six)   **6 x 5 = 30 Marks**

4. The fasting blood sugar value was calculated before and after the treatment with sitagliptin in 6 human volunteers, calculate whether these changes were significant due to drug therapy or not by using paired test:

Before treatment	160	180	140	150	130	190
After treatment	110	120	100	105	90	130

5. Explain about central tendency.

6. Discuss the need for having electronic health records of the patients.

7. Explain Spearman's correlation.

8. Describe the steps involved in research design.

9. What are the assumptions of Chi Square test? Write on the type of data for which Chi square test can be used for computation.

10. What are observational study designs? Explain.

11. Write the applications of SAS and SPSS software.

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. Pearson's correlation

13. Confidence Intervals

14. Sample size calculation

15. Variance

16. Standard deviation and standard error

17. Scatter plots

18. Power of study

19. Incidence rate and Prevalence rate

20. Attributable risk and relative risk

21. Inventory control

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