Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharma-D (Post Baccalaureate) Degree Examination – Aug 2013

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. Explain with the help of a suitable example, different measures of central tendency. Give reasons why they are called as measures of central tendency.

2. What is hypothesis? What are the different types of hypothesis? Explain how do you formulate the hypothesis with a suitable illustration.

3. Discuss the application of computers in (i) Patient data management and (ii) Inventory control.

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

4. What is standard deviation? Can this be used to compare the variation in two variables with different unit of measurement? If not, suggest an alternative measure.

5. What are interventional studies? Explain briefly.

6. Explain the accounting and general ledger systems.

7. Describe the method of drawing histogram for a continuous data with an illustration.

8. Write a note on Epi info software.

9. The following data 5,8,6,9,2,4,10 and 3 is on the geriatric patient prescribed with high protein diet showing increase in their body weight (kgs). Find mean and variance.

10. What are the underlying assumptions of one way ANOVA? If these assumptions are not fulfilled which alternative non-parametric test do you suggest?

11. What is correlation? Name the different types of correlation. Which are the different measures of correlation?

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

12. Student's t-test
13. Quantitative and qualitative variables
14. P-value
15. Degrees of freedom
16. Wicoxon rank sum test
17. Semi logarithmic plots
18. Percentiles
19. Mode
20. Inclusion and exclusion criteria
21. Standard error of mean

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