Rajiv Gandhi University of Health Sciences, Karnataka

IV Year Pharm-D Degree Examination – NOV 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 hypothesis testing of parametric data.

2. Explain the different steps of a research process.

3. Explain the uses of computers in drug information retrieval and storage.

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

4. Distinguish between qualitative and quantitative variables with examples

5. Define incidence and prevalence rates. A screening conducted in a locality of 20000 populations in the year 2014, 112 new asthma cases were detected. In the following year 2015 a repeat screening done in the same population showed 127 new asthma cases. Calculate the incidence and prevalence rate for the year 2014 and 2015 respectively.

6. Explain Wilcoxan signed rank test and Mann Whitney U test.

7. Explain crossover studies in bioequivalence trials.

8. Describe cross-sectional study. What are its merits and demerits?

9. Design a randomized controlled trial to compare the effectiveness of two drugs to treat diabetes mellitus.

10. What are the various observational study designs? Explain.

11. Explain statistical measures of variability.

SHORT ANSWERS   10 x 2 = 20 Marks

12. Define frequency distribution.

13. p value

14. Z test

15. Define Population.

16. Standard error proportion and standard deviation

17. Define scatterplots semilogarithmic plots.

18. Define degree of freedom.

19. Tabulation of data and report writing

20. Inventory control

21. Null hypothesis

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