Q.P. Code: 105340   **Reg. no.: …………………**

First Pharm D Post Baccalaureate Degree Examinations, July 2017

Paper V – Biostatistics & Research Methodology

Time: 3 Hours   **Total Marks: 70**

- Answer all questions
- Draw diagrams wherever necessary

Essay: **(3x10=30)**

1. Explain the steps involved in hypothesis testing with an example.

2. Classify ANOVA and describe the general steps involved in the calculation of one way ANOVA. Mention the important posttests.

3. Describe the need for sample size calculation in clinical studies. Explain the method of sample size calculation for estimation of mean and comparison of mean.

Short notes: **(8x5=40)**

4. How data distribution in clinical study is analyzed.

5. What is chi square test. How it has been done.

6. Relative and attributed risk.

7. Explain the importance and application of statistical soft wares in pharmacy

8. How patient medication profile is recorded in the pharmacy and state its importance.

9. What are Pearson's and Spearman's correlations. Mention its application

10. Explain type-I and type-II errors

11. Explain various types of observational studies.

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