# Q.P. Code: 404326

Fourth Year Pharm D Degree Supplementary Examinations, February 2015

#### **Biostatistics & Research Methodology**

#### **Time: 3 Hours**

- Answer all questions
- Draw diagrams wherever necessary

#### **Essay:**

(3x10=30)

- 1. Explain central tendency and dispersion. Define and compare the characteristics of mean, median, mode, variance, standard deviation (SD) and standard error of mean (SEM).
- 2. Discuss the design and methodology of cohort studies.
- 3. Discuss sample size determination in detail

### Short notes:

- 4. Explain the methodology of Pearson's Chi square test with a suitable example.
- 5. Applications of SPSS & Epi info software in biomedical research.
- 6. Explain the methodology of paired t-test with a suitable example.
- 7. Define correlation and mention the methodology of Spearman's correlation.
- 8. Discuss the methodology of case control studies.
- 9. Explain graphical representation of data using histograms and Pie-charts.
- 10. Define hypothesis and mention the hypothesis testing.
- 11. Explain the methodology of Wilcoxon signed rank test with the help of a suitable example

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Reg. no.: .....

## **Total Marks: 70**

(8x5=40)