LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – **ECONOMICS**

THIRD SEMESTER – APRIL 2017

EC 3503 - QUANTITATIVE METHODS IN ECONOMICS

Date: 02-05-2017   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

PART-A (5 x 4 = 20 Marks)

Answer any FIVE Questions each in about 75 words

1. Explain Addition theorem of probability.

2. List out the importance of Poisson distribution.

3. Explain type I and type II error.

4. List out the properties of f-distribution.

5. What are randomized block designs?

6. The mean of Poisson distribution is 2.25.Find the other constants of the distribution.

7. What are the procedures followed in testing of hypothesis?

PART-B (4 x 10 = 40 Marks)

Answer any FOUR Questions each in about 250words

8. Explain the Baye's theorem and list out its uses in probability theory.

9. Briefly describe about the Binomial distribution.

10. Illustrate one tailed test and two tailed test.

11. Explain level of significance; How is it interpreted?

12. Explain Latin Square Design; describe the steps in construction of LSD.

13. Describe the importance and properties of normal distribution.

14. Explain the ANOVA; point out its assumptions and techniques .

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PART-C (2 x 20 = 40 Marks)

Answer any TWO Questions each in about 900 words

15. Explain the various approaches of probability theory using suitable examples.

16. Calculate the frequencies of normal distribution which was the same mean, standard deviation and total frequency as the distribution given below or the intervals 60 -65, 70 -75 etc.

60 - 65	65- 70	70 - 75	75 - 80	80 - 85	85 - 90	90 - 95	95 - 100
3	21	150	335	325	135	26	4

17 Describe the different types of hypothesis, list out the features of a good hypothesis

18. Use Chi-Square to test if the two attributes in the following contingency table are independent.

TRAINING			
Performance	Intensive	Good	Average	Total
Above average	100	150	40	290
Average	100	100	100	300
Poor	560	80	150	280
Total	250	330	290	870

[Hint: $x^2_{\alpha=0.05}$ = 9.49]

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