LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – **NOVEMBER 2017**

16UEC3MC02 – BASIC ECONOMETRICS

Date: 07-11-2017   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

PART-A

Answer any FIVE Questions in about 75 words each: **(5 × 4 = 20Marks)**

1. What is econometrics? List out the goals of econometrics.

2. Four cards are drawn at random from well shuffled standard pack of 52 playing cards without replacement. What is the probability that they are (i) all kings and (ii) all black?

3. State the probability density function.

4. Distinguish between point and interval estimate.

5. Differentiate between PRF and SRF.

6. Write a short note on least squares method.

7. What is goodness of fit?

PART-B

Answer any FOUR Questions in about 250 words each: **(4 × 10 = 40Marks)**

8. Distinguish econometrics from statistics and mathematical economics.

9. What are the divisions of econometrics?

10. State and prove the conditional probability.

11. Explain the central limit theorem.

12. Briefly examine the properties of a good estimator.

13. Examine the assumptions of linear stochastic regression model.

14. Derive the normal equations to estimate the parameters of the model $Y_t = \ + \ x_t + \mu_t$.

PART-C

Answer any TWO Questions in about 900 words each: **(2 × 20 = 40Marks)**

15. Discuss the methodology of econometrics.

16. What is hypothesis? Explain the confidence interval approach to hypothesis testing.

17. Distinguish simple linear regression model from multiple linear regression with an example and state the reason for inclusion of disturbance term in these models.

18. From the following data, estimate parameters of the SLR model $Y_t = \ + \ x_t + \mu_t$, S.E. and also compute R^2.

Sales (Y)	91	97	108	121	67	124	51	73	111	57
Purchase (X)	71	75	69	97	70	91	39	61	80	47

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