

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – NOVEMBER 2019

16/17/18UEC3MC02 – BASIC ECONOMETRICS

Date: 31-10-2019
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART - A

Answer any FIVE the questions in about 75 words each.

(5 x 4 = 20 marks)

1. Define Econometrics?
2. Write a short note on Random variable.
3. What do you mean by estimation?
4. What do you mean by population regression function?
5. Define Coefficient of Determination.
6. What is conditional probability?
7. What is goodness of fit?

PART- B

Answer any FOUR questions in about 250 words each

(4 x 10 =40 marks)

8. Explain the limitations of econometrics?
9. A bag contains 5 white and 4 Black balls. Two balls are drawn at random one after the other without replacement. Find the probability that both balls drawn are black.
10. Write short note on Point estimation and Interval estimation.
11. What are the stochastic assumptions of error term μ_i ?
12. Derive the two normal equations.
13. What are the desirable properties of a good estimator?
14. From the following estimated function from a sample of 20 observations, obtain 95% percent confidence interval for the parameters.

$$\bar{y}_I = 128.5 + 2.88 x$$

$$S.E = (38.2) (.85)$$

Section - C

Answer any TWO questions in about 900 words each

(2 x 20 = 40 marks)

15. Discuss the nature and Scope of Econometrics.
16. A random sample of 25 people from a population showed incomes with a mean $\bar{x} = \text{Rs.}4800$ and a Standard deviation $S = \text{Rs.}500$. Estimate the population mean with 95% confidence interval. What assumption did you make about the population and how would you justify it?
17. Find the equation of regression lines for the following data:

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|----|----|----|----|----|----|----|----|----|----|----|
| X: | 25 | 28 | 35 | 32 | 36 | 36 | 29 | 38 | 34 | 32 |
| Y: | 43 | 46 | 49 | 41 | 36 | 32 | 31 | 30 | 33 | 39 |

18. Discuss the Central Limit Theorem.
