



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – NOVEMBER 2017

EC 3502 – QUANTITATIVE TOOLS FOR ECONOMICS

Date: 04-11-2017

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART –A

Answer any Five questions in about 75 words each

(5 x 4 = 20 marks)

1. State the functions of statistics.
2. What are the sources of collecting secondary data?
3. Define classification and state its types.
4. Find the median from the set of 10 observations: 27, 36, 28, 18, 35, 26, 20, 35, 40, 26
5. Calculate Range and its coefficient from the following data : 1440, 1456, 1522, 1380, 1495, 1395, 1575, 1444.
6. Write a note on positive and negative correlation.
7. What are the uses of index numbers?

PART –B

Answer any FOUR questions in about 250 words each

(4 x 10 = 40 marks)

8. The annual profits of 100 companies is distributed as follows

Profits(Rs Lakhs)	0-50	50-100	100-150	150-200	200-250	250-300
Number of Companies	12	18	27	20	17	6

Draw a histogram and frequency polygon.

9. Explain the parts of a table.
10. Calculate mode from the following data

Class	3-7	8-12	13-17	18-22	23-27	28-32
Frequency	108	580	175	80	32	18

11. Write a note on the components of time series analysis.
12. Calculate Quartile deviation and its coefficient from the data given

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	8	20	34	46	28	14	10

13. Find Karl Pearson coefficient of skewness from the data:

Class interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	6	11	21	35	30	22	11

14. Explain the concepts of time reversal and factor reversal.

PART –C

Answer any TWO questions in about 900 words each

(2 x 20 = 40 marks)

15. Discuss the methods adopted in collecting primary data.

16. Calculate Coefficient of correlation from the data:

Index of Production	100	102	104	107	105	112	103	99
Number of Unemployed	15	12	13	11	12	12	19	26

17. From the data given

- A) Estimate the two regression lines
- B) Estimate the value of X when Y=75

	X	Y
Arithmetic Mean	36	85
Standard Deviation	11	8
Correlation coefficient between X and Y	0.66	

18. A) Calculate the cost of living index number by the family budget method

Commodity	Quantity in 2000	Price per unit 2000	Price per unit 2010
A	100	8.00	12.00
B	25	9.00	7.50
C	10	6.00	5.25
D	20	5.00	60.00
E	25	48.00	16.50
F	30	15.00	27.00

B) Discuss the problems in the construction of index numbers.
