

# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – November 2009

## EC 3502/EC 3500 - QUANTITATIVE TOOLS FOR ECONOMICS

Date & Time: 06/11/2009 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

### PART – A

Answer any FIVE questions in about 75 words each.

(5 x 4 = 20 marks)

1. What are the Limitations of statistics?
2. Where do we use bar diagram?
3. Bring out the objectives of classification.
4. Define coefficient of Kurtosis.
5. What is the significance of Standard deviation?
6. Define Rank Correlation.
7. What are the uses of Index numbers?

### PART – B

Answer any FOUR questions in about 300 words each.

(4 x 10 = 40 marks)

8. Represent the following data by a simple Pie diagram

Items	Food	Cloth	Education	Health	Rent	Others
Expenditure In thousand Rupees/ month	10	2	4	1	1	6

9. Bring out the merits and demerits of different measures of Central tendency.

10. Calculate the standard deviation for the following data

Wages in Rs./wk	0-1000	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000
No. of wage earners	18	26	30	12	10	4

11. Compare the correlation analysis with regression analysis.

12. Mean and standard deviation of 100 items are found to be 40 and 10 . If at the time of calculation two items are wrongly taken 30 and 70 instead of 3 and 27 , find the correct mean and standard deviation.

13. Calculate the coefficient of Rank correlation for the following data

X	75	88	95	70	60	80	81	50
Y	120	134	150	115	110	140	142	100

14. Explain the different methods of estimating a trend of a time series data.

**PART – C**

**Answer any TWO questions in about 900 words each.**

**(2 x 20 = 40 marks )**

15. Examine the importance of statistics in economic analysis and business decision making.

16. Calculate the Karl Pearson coefficient of Skewness.

Profit in lakhs	70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150
No. of companies	12	18	35	42	50	45	30	8

17. Estimate the regression equations  $Y_i = a + b X_i$  and  $X_i = c + d Y_i$  and also find out the value of correlation coefficient.

$Y_i$	6	1	0	0	1	2	1	5
$X_i$	1	5	3	2	1	1	7	3

18. Calculate Laspeyre's, Paasche's and Fisher's index number for the given data

Commodity	( QUANTITY )		( PRICE )	
	2000 -2001	2008-2009	2000 – 2001	2008- 2009
A	10	12	5	6
B	12	8	7	10
C	8	8	10	12
D	5	6	4	5
E	7	8	8	8

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