



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – NOVEMBER 2011

EC 3502/EC 3500 - QUANTITATIVE TOOLS FOR ECONOMICS

Date : 03-11-2011

Dept. No.

Max. : 100 Marks

Time : 9:00 - 12:00

PART – A

Answer any FIVE questions in about 75 words each.

(5 x 4 = 20 marks)

1. List out the functions of statistics.
2. What are the requisites of a good table?
3. What are 'Ogives'?
4. The daily income of a casual worker for the last week are 40 30 100 90 110 150 145 . Find out the coefficient of Range.
5. What is the use of coefficient of variation?
6. Distinguish between Correlation and Regression.
7. What do you mean by cost of living index?

Part – B

Answer any FOUR questions in about 300 words each.

(4 x 10 = 40 marks)

8. Represent the following data by a simple bar diagram

Countries	Cuba	Australia	India	Japan	Java	Egypt
Production of sugar in million quintals	32	30	20	5	1	1

9. Bring out the merits and demerits of Arithmetic Mean.
10. The mean of 100 items is 28 and the value of standard deviation is 2. Determine a) Sum of all items ΣX and b) Sum of squares of all items ΣX^2 .
11. Explain the various methods of collection of Primary Data.
12. The following data represents the capital employed (X in '000 Rs.) and profit earned (Y in '000 Rs.) for 10 years. Do you think there exists a correlation between the two?

X	15	25	35	45	55	65	75	85	95	105
Y	2	4	8	5	10	15	14	20	22	30

13. Explain the process of forecasting the Indian GDP for the year 2013. (Assume that you are given data for the period 2001 to 2011).

14. Calculate Laspeyre's. and Paasche's index number for the given data

Commodity	(QUANTITY)		(PRICE)	
	2000 -2001	2010-2011	2000 – 2001	2010- 2011
A	20	16	1.2	2.0
B	35	38	2.1	2.4
C	10	9	3.0	4.1
D	45	50	0.8	1.2

PART – C

Answer any TWO questions in about 900 words each.

(2 x 20 = 40 marks)

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

16. Calculate the Mean , Median and mode for the given data:

Class	2.5 -- 12.5	12.5 – 22.5	22.5 – 32.5	32.5 – 42.5	42.5 – 52.5
Frequency	28	42	60	37	33

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 Y when X = 5 and the value of X when Y = 2.5 from the following data:

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

18. Calculate fisher's ideal index number and prove that it satisfy Time reversal and Factor reversal test.

Commodity	(QUANTITY)		(PRICE)	
	2000 -2001	2010 -2011	2000 – 2001	2010 - 2011
Food	8	8	4	5
Rent	10	12	5	6
Cloth	6	7	3	4
fuel	5	4	8	10

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