



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – ECONOMICS

THIRD SEMESTER – NOVEMBER 2013

EC 3502/EC 3500 – QUANTITATIVE TOOLS FOR ECONOMICS

Date : 08/11/2013
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART-A

Answer any **FIVE** Questions each in about 75 words:

(5 x 4 = 20 Marks)

1. State the limitations of statistics.
2. Write down the various parts of a frequency table by giving an example.
3. State the various types of classification data.
4. Bring out the features of a good average.
5. Explain the importance of the study of correlation analysis.
6. Point out the methods of constructing an index number.
7. Explain the significance of time series analysis.

PART-B

Answer any **FOUR** Questions each in about 250 words:

(4 x 10 = 40 Marks)

8. Define statistics, point out the fields in which the applications of Statistics is possible.
9. Define pictogram, draw a bar diagram from the following data.

Year	Sales (000 Rs.)	Gross profit (000 Rs.)	Net profit (000 Rs.)
2009	120	40	20
2010	135	45	30
2011	140	55	35
2012	150	60	40

10. Calculate the Mean deviation from the following data:

Marks	:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	:	5	8	12	15	20	14	12	6

11. Find out standard deviation from the following data:

Age	:	20-25	25-30	30-35	35-40	40-45	45-50
No. of persons	:	170	110	80	45	40	35

12. Explain the several classification of correlation with examples.
13. Explain the problems faced in the construction of an index number.
14. Below are given the data of annual production of a fertilizer factory. Fit a straight line trend by the method of least squares.
Year : 2002 2003 2004 2005 2006 2007 2008
Production : 70 75 90 91 95 98 100

PART-C

Answer any **TWO** Questions each in about 900 words:

(2 x 20 = 40 Marks)

15. Discuss the different types of diagrams used in the presentation of a statistical data.
16. Calculate mean, median and mode from the following data.
Weight : 100-110 110-120 120-130 130-140 140-150 150-160 160-170 170-180
Frequency: 4 6 20 32 33 17 8 2
17. By using the following data find out the two lines of regression and from them compute the Karl Pearson's coefficient of correlation.
 $\sum X = 250$; $\sum x^2 = 6500$; $\sum y^2 = 10000$; $\sum xy = 7900$; $N = 10$
18. Construct Index number for the following data using,
i) Fisher's method
ii) Marshall-Edgeworth method

Commodity	2011		2012	
	Price	Quantity	Price	Quantity
A	2	8	4	6
B	5	10	6	5
C	4	14	5	10
D	2	19	2	13

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