LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.A. DEGREE EXAMINATION – **ECONOMICS**

THIRD SEMESTER – **APRIL 2016**

EC 3502/EC 3500 – QUANTITATIVE TOOLS FOR ECONOMICS

Date: 28-04-2016 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. What are the advantages of using statistical techniques in Economics?
2. Distinguish between 'Primary' and 'Secondary' Data'.
3. What are the objectives of classification of data?
4. Find out the Harmonic Mean for the following set of observation: 3834, 382, 63, 8, 0.4, 0.03, 0.009 , 0.005.
5. What is the difference between skewness and kurtosis?
6. Bring out the different types of correlation.
7. What are the advantages of weighted Index Numbers?

PART – B

Answer any FOUR questions in about 300 words each. (4 x 10 = 40 marks)

8. Consumption and Income of a country from 2011-12 to 2014 -15 are given below. Show the data with the help of multiple bar diagram

Year	CONSUMPTION (in crores of Rs.)	INCOME (in crores of Rs.)
2011 - 12	800	1000
2012 -13	750	1500
2013 - 14	1000	2000
2014 - 15	1500	2000

9. Explain in detail the Uses and Limitations of Statistics.

10. Calculate the Coefficient of variation from the following data

Age in years	20-25	25-30	30-35	35-40	40-45
No. of employees	1	22	64	10	3

11. Compare and contrast correlation with regression analysis.

12. If Arithmetic Mean = 200 , Coefficient of variation = 8 and Karl Pearson's coefficient of skewness = 0.3. Find the Median and Mode.

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 components of a Time series.

PART – C

Answer any TWO questions in about 900 words each. **(2 x 20 = 40 marks)**

15. Describe different methods of Tabulation, Diagrammatic and graphical representation of Data using suitable illustration.

16. From the data given below calculate karl pearson's co efficient of Skewness.

Age	20 - 25	25 - 30	30 -35	35 - 40	40 - 45	45 - 50	50 - 55	55 -60
No. of Persons	50	70	80	180	150	120	70	50

17. Estimate the regression equations $Y_i = a + b X_i$ and also the correlation co efficient between the two given variables.

X_i	52	63	45	36	72	65	47	25
Y_i	62	53	51	25	79	43	60	33

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

	(QUANTITY)		(PRICE)	
Commodity	2010 -2011	2014 -2015	2010 – 2011	2014 - 2015
A	50	56	6	10
B	100	120	2	2
C	60	60	4	6
D	30	24	10	12
E	40	36	8	12

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