LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Com. DEGREE EXAMINATION – **CORPORATE SECRETARYSHIP**

FIRST SEMESTER – **NOVEMBER 2018**

CO 1104 – FUNDAMENTALS OF STATISTICS

Date: 31-10-2018 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

PART-A

Answer the following: **10 x 2 = 20**

1. Define Statistics.
2. Mention any two uses of Graphical representation.
3. Mention some measures of Central tendency.
4. Find the Mean 45, 55, and 90,100,24,16,75.35.
5. What are the types of Correlation?
6. State the regression equation of X on Y and Yon X.
7. Calculate the Quartile Deviation -35, 16, 23, 18,27,58,40.
8. What is a Bar Diagram?
9. Calculate Range from the following: 200, 210, 208, 160, 220 and 250.
10. What is skewness?

PART-B

Answer any FOUR of the following: **4 x 10 = 40**

11. Differentiate between Regression and Correlation.
12. Explain the components of Time Series.
13. A) Explain the various methods of Dispersion.

    B) Explain the types of Correlation.
14. Construct a Histogram and Frequency Polygon from the data given below:

Income (in 000's)	0-5	5-10	10-15	15-20	20-25	25-30
No. of Employees	15	20	25	40	50	20

15. From the following data, find out which product is more stable in prices.

Prices of A (Rs.)	20	22	19	23	16
Prices of B (Rs.)	10	20	18	12	15

16. Compute Quartile Deviation and its coefficient.

Weight	60	61	62	63	65	80	75	70
No.of Workers	1	3	5	7	10	1	3	1

17. Determine the Seasonal Indices for the following using the method of Simple Averages:

Quarter / Year	I	II	III	IV
1974	72	68	80	70
1975	76	70	82	74
1976	74	66	84	80
1977	76	74	84	78
1978	78	74	86	82

PART-C

Answer any TWO of the following: **2 x 20= 40**

18. Compute coefficient of correlation for the following data:

X	25	35	45	52	20	33	40	30
Y	20	15	10	14	23	18	22	30

19. Calculate Mean, Median and Mode and verify empirical relation:

Class Interval	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	33	12	16	42	32	45	26

20. Calculate the Rank Correlation from the following data:

X	52	63	45	36	72	65	47	25
Y	62	53	51	25	79	43	60	33

21. Calculate the Regression Equations of X on Y and Y on X from the following data and estimate X when Y=26 and Y when X=35. Also calculate the Coefficient of correlation.

X	10	12	13	17	18	20	24	30
Y	5	6	7	9	13	15	20	21

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