LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.B.A. DEGREE EXAMINATION – BUSINESS ADMINISTRATION

FIRST SEMESTER – **APRIL 2019**

BC 1100– ELEMENTS OF STATISTICS

Date: 09-04-2019   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

Section A

Answer ALL the Questions (2x10=20 Marks)

1. What is statistics?

2. Define Tabulation.

3. Define correlation.

4. What do you meant by range?

5. Define S.D.

6. Draw a percentage bar diagram for the following data.

Expenditure	Factory R	Factory S
Rent	5000	8000
Transport	2000	2500
Electricity	1500	3000
Labour	10000	15000

7. Name any two components of time series.

8. Define Arithmetic mean.

9. Give any two uses of regression.

10. Define time series.

Section B

Answer any FOUR Questions (4x10=40 Marks)

11. State the Functions of Statistics.

12. Calculate Geometric mean for the following data:

Class	0-10	10-20	20-30	30-40	40-50
Frequency	5	7	15	25	8

13. Calculate standard deviation from the following data

Marks	10	20	30	40	50	60
No. of students	8	12	20	10	7	3

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14. Explain the methods of Measurement of trend analysis.

15. Calculate Karl Pearson's coefficient of correlation from the following information

X	78	89	96	69	59	79	68	61
Y	125	137	156	112	107	136	123	108

Take 69 and 112 as the assumed mean.

16. State the objectives of tabulation.

17. Calculate the standard deviation and its coefficient for the following data:

X	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0
F	2	16	36	60	76	37	18	3	2

Section C

Answer any TWO Questions (2x20=40 Marks)

18. Calculate Bowleys Coefficient of Skewness from the following

Profits (Rs. In Lakhs)	Less than 10	20	30	40	50	60	70
No.of Companies	8	20	40	50	56	59	60

19. Obtain the rank correlation coefficient for the following.

X	68	64	75	50	64	80	75	40	55	64
Y	62	58	68	45	81	60	68	48	50	70

20. Obtain the lines of regression from the following:

X	4	5	6	8	11
Y	12	10	8	7	5

Verify that the coefficient of correlation is the geometric mean of the two regression coefficients.

21. Compute the seasonal index numbers applying the simple average method for the following:

Year	Summer	Monsoon	Autumn	Winter
1981	112	110	120	115
1982	80	145	105	90
1983	95	100	140	80
1984	110	90	130	110
1985	85	110	110	90
1986	92	120	110	85

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