LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.B.A. DEGREE EXAMINATION –**BUSINESS ADMINISTRATION**

FIRST SEMESTER – **APRIL 2018**

BC 1100– ELEMENTS OF STATISTICS

Date: 28-04-2018 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

Section A

Answer ALL the questions (10x2=20 Marks)

1.Define Statistics.

2. Define primary data with examples.

3.What do you mean by range?

4. What do you mean by frequency distribution?

5. Define correlation.

6. Define Time series.

7. What do you mean by regression?

8. Define Tabulation.

9. What is standard deviation?

10. Define Skewness.

Section B

Answer any FOUR questions (4x10=40Marks)

11. State the functions of statistics.

12. Explain the types of data.

13. Draw a Lorenz curve from the following data

Salary (in Rs)	100	150	200	250	300
No. of workers	20	10	8	10	2

14. Compute median from the following data.

Mid values	115	125	135	145	155	165	175	185	195
Frequency	6	25	48	72	116	60	38	22	3

15. From the following details calculate standard deviation

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

16. From the following data find out Pearson's coefficient of correlation.

Demand (kg)	28	34	41	57	52	68	62	75
Price (Rs)	14	18	23	28	30	34	37	41

17. Fit a straight line trend by the method of least square and calculate the trend values from the following details of annual turnover(in thousand tonnes) of a car factory.

Year	2001	2002	2003	2004	2005	2006	2007
Turn over	70	75	90	91	95	98	100

Section C
Answer any TWO question (2x20=40 Marks)

18. Explain with example the rules regarding construction of a table.

19 (a). From the following data, find out using empirical formula

C.I	3-4	4-5	5-6	6-7	7-8	8-9	9-10
F	83	27	25	50	75	38	18

(b). Calculate Harmonic mean of the following data

X	10	20	25	40	50
F	20	30	50	15	5

20. (a). Find the quartile deviation for the following details.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	8	20	25	30	12	5

(b). The production of fertilizer by a firm as follows:

Year	1	2	3	4	5	6	7	8	9
Production	4	5	5	6	7	8	9	8	10

Calculate the trend values for thye above series by the following methods

(i) 3-yearly moving average

(ii) Least square method.

21. Obtain the lines of regression from the following data

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.

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