LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – NOVEMBER 2017

BC 1100 - ELEMENTS OF STATISTICS

Date: 07-11-2017 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

Section A

Answer ALL the Questions (10x2=20 Marks)

1. Define Statistics.
2. Give any two advantages of statistics.
3. What is Secondary data?
4. Define mean.
5. Define range.
6. What is Skewness?
7. Define Regression.
8. Write any two merits of correlation.
9. What do you mean by time series?
10. List out the methods of seasonal variation.

Section B

Answer any FOUR Questions (4x10=40 Marks)

11. What are the importance and cope of statistics?-Explain
12. Calculate the Spearman's rank correlation coefficient from the following data.

Serial No.	1	2	3	4	5
Tamil	85	60	73	40	90
English	93	75	65	50	80

13. Briefly explain the methods of collecting data? And Explain.
14. Define Lorenz curve. And explain its steps.
15. Calculate Standard deviation for the following data.

Class Interval (X)	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Frequency(F)	6	5	15	10	5	4	3	2

16. Fit a straight line trend for the following data by the method of least squares.

Year	2012	2013	2014	2015	2016	2017
Production	7	9	12	15	18	23

17. From the following series, find out the karlpearson's coefficient of skewness.

Measurement	11	12	13	14	15
Frequency	3	9	6	4	3

Sectio C

Answer any TWO Questions (2x20=40 Marks)

18a). Calculate Mean, Median and Mode from the following. (10 Marks)

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No.of Students	4	12	40	41	27	13	9	4

18.b)The production of Paddy by a firm in years are given below (10Marks)

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 the above series by the least squares method.

19a) Compute the seasonal index numbers applying the simple average method for the following data.

Year	Summer	Monsoon	Autumn	Winter
2001	112	110	120	115
2002	80	145	105	90
2003	95	100	140	80
2004	110	90	130	110
2005	85	110	110	90
2006	92	120	110	85

c. b) From the following data find out pearson's coefficient of correlation (10Marks)

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

20) Calculate Bowley's coefficient of skewness from the following distribution. (20Marks)

X	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Y	358	2417	976	129	62	18	10

21. From the data given below calculate

(20Marks)

a) The two regression equation.

b)The co efficient of correlation between marks in Accountancy and Commerce.

c) The most likely marks in Commerce when marks in Accountancy are 30.

Marks in Accountancy	25	28	35	32	31	36	29	38	34	32
Marks in Commerce	43	46	49	41	36	32	31	30	33	39

$$$$$$$$