

Following Paper ID and Roll No. to be filled in your Answer Book.

**PAPERID:29312**

Roll  
No.

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## Int. LL.B Examination 2016-2017

(Third Semester)

### BUSINESS STATISTICS

*Time : 3 Hours*

*[Maximum Marks : 60*

**Note :-** Attempt all the questions.

#### SECTION – A

1. Attempt all parts of following:  $8 \times 1 = 8$

- (a) The words 'statistics' is derived from the Latin word.....
- (b) In singular sense statistics means.....
- (c) Find the mode of the number:

3, 5, 8, 6, 3, 4, 3, 9

- (d) Calculate coefficient of range from the following data.

Income (in Rs. )	No. of worker
100-120	40
120-140	60
140-160	80
160-180	50
180-200	20

- (e) If the regression coefficient are 0.9 and 0.4? What would be the value of coefficient of correlation.
- (f) What is the range of the coefficient of correlation?
- (g) If  $Q_1=41$ ,  $Q_3=49$  find out the value of coefficient of Q.D.
- (h) Write the formula for Bowley's coefficient of Skewness.

### SECTION – B

2. Attempt any two parts of following :  $2 \times 6 = 12$

- (a) Explain the meaning of Statistics.
- (b) From the prices of shares of A company and B company given below, state which is more stable in value :

A Company	B Company
55	108
54	107
52	105
53	105
56	106
58	107
52	104
50	103
51	104
49	101



- (c) Fit a straight line trend by the method of least squares to the following data :

Year	Production in 000 Quintel.
2006	80
2007	90
2008	92
2009	83
2010	94
2011	99
2012	92

- (d) Distinguish clearly between Skewness and Kurtosis.

### SECTION - C

**Note:-** Attempt all questions. Attempt any two parts from each questions.  $5 \times 8 = 40$

3. (a) Find out Mean, Median of the following series :

Class Interval	Frequency
0-5	5
5-10	9
10-15	16
15-20	25
20-25	17
25-30	10

- (b) Find out Mode from the following data:

Wages Rs.	No. of Employees
0-10	6
10-20	9
20-30	10
30-40	16
40-50	12
50-60	8
60-70	7

- (c) Explain application of statistics in mangerial decision making.



4. (a) Compute Standard Deviation and Coefficient of Variation.

Marks	No. of students
0-10	6
10-20	10
20-30	20
30-40	9
40-50	5

- (b) From of following distribution calculate Kurtosis :

Income (Rs.)	Frequency
0-10	1
10-20	3
20-30	4
30-40	2

- (c) What is Skewness? Explain Karl Pearson's measures of Skewness.
5. (a) Calculate Fisher Ideal Index Number from the following information :

Item	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	2	4	6	5
B	4	5	8	4
C	6	2	9	3
D	8	1	6	2
E	10	1	5	2

- (b) How do index numbers help in economic analysis?
- (c) Calculate the coefficient of correlation between exports and imports :

Export	Imports
42	56
44	49
58	53
55	58
89	65

98	76
66	58

6. (a) From the following data obtain the regression line :

X	Y
6	9
2	11
10	5
4	8
8	7

- (b) What do you mean by regression? Explain its utility.
- (c) What is time series analysis? What are the components of time series?

