

(NEP)

B.Com. III Semester Degree Examination, February/March - 2023

COMMERCE

Business Statistics

Paper : DSC-3.2

Time : 3 Hours

Maximum Marks : 60

**Instructions to Candidates :**

1. All sections are compulsory.
2. Attempt according to internal choice.

## SECTION - A

Answer any six questions.

(6×1=6)

1. a. What do you mean by business statistics?
- b. What is meant by absolute measure of variation?
- c. Define probability.
- d. What is linear correlation?
- e. What do you mean by consumer price indices?
- f. What are quartiles?
- g. Define interpolation.
- h. Expand- BSE and NSE.

## SECTION - B

Answer any three questions.

(3×6=18)

2. From the following data, Calculate Harmonic Mean

C.I:	10-20	20-30	30-40	40-50	50-60
f:	4	6	10	7	3

3. Compute Quartile deviation and its co-efficient from the following data.

Marks :	10	20	30	40	50	60
No. of students :	4	7	15	8	7	2

4. A bag contains 5 white and 3 black balls. Two balls are drawn one after the another without replacement. Find the probability that both balls drawn are black.

5. The ranking of 10 students in two subjects, Accountancy and Statistics are as follows.

Accountancy :	3	5	8	4	7	10	2	1	6	9
Statistics :	6	4	9	8	1	2	3	10	5	7

What is the coefficient of rank correlation?

6. Calculate the cost of living index for the following data.

Group	Index No.	Weights
Food	350	10
Fuel	150	2
Clothing	200	2
Rent	150	2
Miscellaneous	225	4

SECTION - C

Answer any **three** questions.

(3×12=36)

7. From the following data compute mean, median and mode.

Marks :	0-10	10-20	20-30	30-40	40-50	50-60
No. of students :	5	10	20	35	20	10

8. From the following data, calculate Karl Pearson's coefficient of skewness.

Class :	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f :	11	22	30	35	21	11	6	5

9. From the data given below estimate the no. of persons living between the Age of 35 and 42 (Use Newton's Method)

Age :	20	30	40	50
No. of persons living :	513	439	346	243

10. The following table shows the Ages (X) and blood pressure (Y) of 8 persons.

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

Obtain the regression equation of Y on X and find the expected blood pressure of a person who is 49 years old.

11. Construct price index numbers from the following data, applying

1. Laspeyre's.
2. Paasche's and
3. Fisher's method.

Commodity	Price		Quantity	
	Year 2000	Year 2010	Year 2000	Year 2010
A	2	4	8	6
B	5	6	10	5
C	4	5	14	10
D	2	2	19	13