



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

COMMERCE

Business Statistics

(NEP)

Time : 2 Hours

Maximum Marks : 60

Notes : Attempt **All** Sections.

SECTION - A

1. Answer the following Sub-questions. **10x1=10**
- (a) Define Statistics.
 - (b) Mention the positional Averages.
 - (c) State any two methods of measuring variations.
 - (d) What is Skewness ?
 - (e) Quote the two types of correlation.
 - (f) What are the methods of regression analysis ?
 - (g) Define index number.
 - (h) Write the formula of laspeyres method.
 - (i) What do you mean by probability ?
 - (j) State any one probability distribution.

SECTION - B

- Answer **any four** of the following questions. **4x5=20**
2. Find the missing frequency when arithmetic mean is 24.4
- | | | | | | | |
|---|----|----|----|----|----|----|
| X | 10 | 15 | 25 | 35 | 45 | 50 |
| F | 8 | 5 | ? | 4 | 2 | 3 |
3. Calculate standard deviation for the following data :
Marks Obtained : 77, 73, 75, 70, 72, 76, 75, 72, 74, 76.
4. Calculate Rank correlation co-efficient between the ranks in two tests :
- | | | | | | | |
|---------|---|---|---|---|---|---|
| Test-I | 1 | 2 | 3 | 4 | 5 | 6 |
| Test-II | 2 | 1 | 5 | 6 | 4 | 3 |
5. From the following data of Madhava Co.Ltd., compute cost of living index.
- | Group | Index No | Weights |
|----------|----------|---------|
| Food | 350 | 05 |
| Fuel | 220 | 01 |
| Clothing | 230 | 01 |
| Rent | 160 | 03 |
| others | 190 | 02 |



6. From a pack of playing card, if one card is drawn what will be the probability.
 (a) A king (b) A queen (c) An ace
7. Compute quartile deviation of Sahana Co.Ltd. as given below.
 Monthly earnings(₹) 600, 800, 500, 900, 400, 700, 300.

SECTION - C

Answer **any three** of the following questions.

3x10=30

8. Find mean, median and mode for the following data.
 C.I 10-20, 20-30, 30-40, 40-50, 50-60, 60-70
 F 01 03 07 12 05 02
9. Calculate Bowleys co-efficient skewness of Maruthi Co.Ltd. as given below.
 X 20 30 40 50 60 70 80
 F 08 12 18 25 19 11 07
10. Solve the Karl Pearsons co-efficient of correlation taking deviations from Actual mean.
 X 10 12 09 14 15 16 11
 Y 12 10 08 13 14 09 08
11. From the following table of Madhava Co.Ltd. Compute fisher's ideal, marshall edgeworth and Dorbish and Bowley's method of index numbers.

Commodity	Base year		Current year	
	Price	Qty	Price	Qty
A	100	16	150	20
B	50	12	60	12
C	20	6	30	8
D	40	4	50	6

12. (a) A coin is tossed three times. Find the probability of getting.
 (i) All heads
 (ii) At least one head
 (iii) All tails
- (b) A ball is drawn at random from a box containing 6 red balls, 4 white balls and 5 blue balls.
 Determine the probability that the ball drawn is :
 (i) Red
 (ii) White
 (iii) Blue

