Reg. No. | | | | | | | | | | | |

BCMCMCN 302

III Semester B.Com. Degree Examination, Dec. 2024/Jan. 2025
(NEP 2020) (2022-23 Batch Onwards)
BUSINESS STATISTICS

Time : 2 Hours Max. Marks : 60

SECTION – A

Answer **any five** questions. **(2×5=10)**

1. Define Statistics.
2. Find Median marks scored by students of a class.

R. No. :	1	2	3	4	5	6	7	8
Class :	48	36	73	78	87	23	67	92

3. What is primary data ?
4. Mean is 2320, standard deviation is Rs. 120. Find C.V.
5. What is correlation ?
6. In a bivariate data correlation coefficient is 0.8 S. D.(x) = 0.2 and S.D.(Y) = 0.3. Find regression coefficients.
7. What do you mean by cost of living index number ?
8. What is event in probability distribution ? Give example.

SECTION – B

Answer **any four** questions. **(5×4=20)**

9. Mean marks scored by students of a class is 53. The mean marks of girls is 55 and boys is 50. What is the percentage of boys and girls in the class ?
10. From the following distribution of age of women, compute mean deviation from mean and also compute coefficient of mean deviation.

Age	18 – 22	22 – 26	26 – 30	30 – 34	34 – 38
No. of women	20	30	11	3	1

P.T.O.

11. Calculate coefficient of rank correlation between X and Y.

X	18	28	35	44	35	26	37	28
Y	83	51	34	47	34	28	34	46

12. One card is drawn from a well shuffled 52 cards. What is the probability of the card is
    1) Red or a king
    2) A king or a spade ?

13. In a bivariate data x and y the means are respectively 15 and 27. The variances are respectively 25 and 9. The correlation coefficient is – 0.3. What would be the value of Y when x = 8 ?

14. Explain the steps in construction of index numbers.

SECTION – C

Answer **any two** questions. **(2×15=30)**

15. For the following distribution compute mean, median and mode.

C. I.	10 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79
f	8	19	29	36	25	13	04

16. The following are distribution of monthly salary of workers of two factories which is given thousands.
    a) In which factory average salary is more ?
    b) In which factory salary variation is more ?

Salary (₹ in 000s)	400 – 600	600 – 800	800 – 1000	1000 – 1200	1200 – 1400
Factory (A)	4	18	25	2	1
Factory (B)	10	20	42	18	10

17. Compute Fisher's index number and verify for time and factor reversal tests.

Item	Base Year		Current Year	
	Price (₹)	Expenditure (₹)	Price (₹)	Expenditure (₹)
A	20	400	25	500
B	15	150	20	250
C	10	80	10	100
D	8	40	10	50
E	5	15	5	25

18. Compute Karl Pearson's coefficient of correlation between marks in Accounting and Statistics.

Marks in Statistics	Marks in Accounting			
	30 – 40	40 – 50	50 – 60	60 – 70
25 – 35	9	3	5	–
35 – 45	10	25	2	–
45 – 55	1	12	6	2
55 – 65	–	4	16	5