343129

DCBB-303

III Semester B.B.A. Degree Examination, December/January - 2025/26
(NEP - 2020 Scheme Repeaters)
BUSINESS ADMINISTRATION
Statistics for Business Decisions
Paper - 3.3

NEW HORIZON COLLEGE LIBRARY KASTURINAGAR BANGALORE-43

Time : 2½ Hours **Maximum Marks : 60**

***Instructions*:**

Answer the all Sections in English only.

SECTION - A

Answer any Five sub-questions. Each sub-question carries 2 marks. (5×2=10)

1. a) State any two objectives of statistics.

b) What is Average?

c) Find *r*, If $b_{xy} = 0.6$ and $b_{yx} = 0.4$.

d) Mention two objectives of time series.

e) What is TRT?

f) If $\bar{X} = 36$, Z = 39 find median.

g) What is Data?

SECTION - B

Answer any Three questions. Each question carries 4 marks. (3×4=12)

2. Mention the parts of good table.

3. Find Average

x	:	10	20	30	40	50	60
f	:	2	3	5	10	7	3

[P.T.O.

4. Find Rank correlation co-efficient for the following data:

Price of Tea	:	75	88	95	70	60	80	81	50
Price of Coffee	:	120	134	150	115	110	140	142	100

5. Find regression equation of *y* on *x*. If $\bar{X} = 40$, $\bar{Y} = 240$, $\sigma_x = 5$, $\sigma_y = 25$, $r = 0.8$.

6. Calculate consumer price index number from the following data.

Commodity	**A**	**B**	**C**	**D**	**E**
Price(2024)	2	4	6	2	1
Price (2025)	4	6	6	3	1
Weights	2	4	3	1	1

SECTION - C

Answer any Three questions. Each question carries 10 marks. **(3×10=30)**

7. From the following data calculate mean, Median and Mode:

Marks	:	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	:	5	10	12	20	9	11

8. From the following find the standard deviation

Marks in Test I : 5, 7, 16, 27, 39, 53, 56, 61, 80, 101, 105

Marks in Test II : 0, 4, 16, 21, 41, 43, 57, 78, 83, 90, 95

9. Find Karl Pearson co-efficient of correlation

Income	:	100	200	300	400	500	600	700
Weight	:	120	130	140	150	160	170	180

Comment on the results.

10. From the data given below find out trend values for each of the 5 years using the method of least square and estimate the annual sales for the year 2026.

Year	:	2020	2021	2022	2023	2024
Profit	:	50	62	70	48	80

11. Compute the Fisher's ideal index number. Also show how it satisfied TRT and FRT.

Items		**M**	**N**	**O**	**P**	**Q**
2018	Price (Rs.)	20	50	40	60	10
	Quantity	8	10	5	20	6
2019	Price (Rs.)	30	40	50	60	40
	Quantity	10	8	12	16	10

SECTION - D

Answer any One of the following. This carries 8 marks. **(1×8=8)**

12. a) Find mode graphically for the following frequency distribution.

Marks	:	0-10	10-20	20-30	30-40	40-50	50-70	70-80	80-90
No. of stud.	:	7	12	20	35	15	20	5	3

(OR)

b) The distribution of the number of products sold per day in a retail store is as follows:

Products sold	:	10-20	20-30	30-40	40-50	50-60
No. of days	:	40	60	50	30	20

Draw a histogram to represent the above data and determine the mode graphically.

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