



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION – MAY 2025 BUSINESS ADMINISTRATION - II SEMESTER BBA REGULAR/ AVIATION MANAGEMENT 24BBA26A/24BBA26B – DATA ANALYSIS FOR BUSINESS DECISIONS

Time: 3 Hours

Max. Marks: 80

Instruction: Answer should be written completely in English

SECTION - A

1. Answer any **SEVEN** questions. Each question carries **TWO** marks. (7X 2=14)
- Define Statistics as given by Boddington and Bowley.
 - If standard deviation = 20.4 and mean = 27. Calculate the co-efficient of variance.
 - If $b_{xy} = 0.5$, $b_{yx} = 0.2$. Find 'r'.
 - If $r = 0.6$ and $N = 64$ for a distribution. Find the probable error.
 - What are the uses of Time Series?
 - What are the four different methods to find the trend in Time Series?
 - Define probability with an example.
 - What is the probability of getting an odd number from 1 to 10?
 - Define series. What are the three types of data series?
 - If the median is 28 and the arithmetic mean is 29. Find mode.

SECTION -B

Answer any **THREE** questions. Each question carries **EIGHT** marks. (3X 8=24)

2. The data given is the number of students of different departments from two different colleges. Construct a multiple bar diagram.

College	Arts	Science	Commerce
A	1200	800	600
B	700	500	600



3. Calculate the modal wages.

Daily wages (x)	20-25	25-30	30-35	35-40	40-45	45-50
No of workers (f)	1	3	8	12	7	5

4. Calculate Karl Pearson's coefficient of correlation from the following data.

Marks in Economics	48	35	17	23	47
Marks in Banking	45	20	40	25	45

5. Find the trend values for each year, by adopting the method of least squares. Estimate the annual sales for the next five years.

Year	2017	2018	2019	2020	2021
Sales in lakhs	46	50	40	70	60

6. What is the probability of getting a Jack or spade from a pack of 52 cards?

SECTION – C

Answer any **THREE** questions. Each question carries **FOURTEEN** marks.

(3X14=42)

7. a. Draw a pie diagram for the following data.

(7)

Food	12.9 %
Clothing	12.5 %
Oil	27.2 %
Ghee	15.4 %
Transport	15.9 %
Social service	16.1 %

- b. Present the following data in a subdivided bar diagram.

(7)

Year/Faculty	Science	Humanities	Commerce
2014-15	240	560	220
2015-16	280	610	280



8. a. Calculate the arithmetic mean from the following data. (7)

Production in tonnes	5-9	10-14	15-19	20-24	25-29	30-34	35-39
No of factories	15	14	17	22	8	7	11

- b. Calculate the median from the following data. (7)

Marks	50	40	30	20	10
Frequency	10	40	20	12	16

9. a. Calculate Karl Pearson's coefficient of correlation. (7)

X	10	6	9	10	12	13	11	9
Y	9	4	6	9	11	13	8	4

- b. Calculate the value of N, when $r = 0.61$, probable error = 0.1312. (7)

10. a. Fit a straight line trend by the method of least squares. Show the trend line on a graph. Estimate the income for the year 2010. (7)

Year	2000	2001	2002	2003	2004	2005	2006
Income	300	700	600	800	900	700	1000

- b. Calculate the trend values by the method of least squares. (7)

Year	2015	2016	2017	2018	2019	2020	2021
Profit	60	72	65	75	85	80	95

11. a. From a pack of playing cards, a card is drawn at random. What is the probability that it is
a) Red b) Queen c) Either Queen or Ace d) Spade or King (7)
b. A pair of unbiased dice is thrown. If the two numbers appearing be different, find the probabilities that (i) the sum is 6 (ii) the sum is 5 or less. (7)

