



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION – MAY 2025

COMMERCE – II SEMESTER BCOM

24BCO26A – BUSINESS DATA ANALYSIS

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. (7X2=14)
- What are the classification of data?
 - Differentiate between primary data and secondary data.
 - Mention the parts of a table.
 - Mention various types of tables.
 - Mention any two disadvantages of mean.
 - Define median.
 - What is meant by probable error in correlation?
 - What is 'Regression Analysis'?
 - What are the various methods of Trends?
 - What is base year?

SECTION - B

Answer any **THREE** questions. Each question carries **EIGHT** marks. (3X8=24)

2. a) Write a brief note on the requisites of a good classification of data.
b) Explain about the scope of Statistics.
3. The number of workers in a large factory in 2018 was 540 of which 30% were female and the rest males. In 2019 the strength of the workers increased by 100 females and 200 males. In 2020, the total number of workers increased by 25% over its value in 2019. The female workers were 340. Tabulate the data.
4. The following table shows the monthly income (in ₹) of workers in a factory:

Income (₹)	0–10	10–20	20–30	30–40	40–50
No. of Workers	5	10	20	10	5

- Calculate the mean and standard deviation.
- Interpret the result and explain what it tells you about income distribution.



5. Calculate Karl Pearson's coefficient of correlation:

X	1	2	3	4	5
Y	2	4	6	8	10

6. Calculate the consumer price index number for the current year with respect to the base year.

Commodity	Unit	No. of units in the base year	Price per unit in rupees	
			Base Year	Current Year
Rice	Quintal	4	250	1640
Sugar	Quintal	0.5	600	1600
Dal	Quintal	1	400	2100
Tea	Kg.	4	16	64
Fuel	Monthly	12	80	300
Cloth	Yearly	1	200	300
House rent	Monthly	12	200	1200
Miscellaneous	Monthly	12	200	2000

SECTION - C

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

(3X14=42)

7. The following is the frequency distribution of the wages of workers of a factory.

Find the arithmetic mean, median and then by using empirical relation find the mode value.

Daily wage (Rs.)	80-100	100-120	120-140	140-160	160-180	Total
No. of workers	8	22	26	14	10	80

8. Two machines produce packets of chips with the following weight distribution (in grams):

Weight	50-60	60-70	70-80	80-90
Machine A	5	15	20	10
Machine B	10	10	20	10

(i) Calculate the standard deviation and coefficient of variation for both the machines.

(ii) Which machine is more consistent? Justify.

9. The following data relate to the age of husbands and wives. Obtain the two regression equations and determine the most likely age of husband when age of wife is 25 years.

Age of husbands	25	28	30	32	35	36	38	39	42	55
Age of wives	20	26	29	30	25	18	26	35	35	46



10. The following table gives the scores of 6 students in Subject A and Subject B. Calculate Spearman's Rank Correlation Coefficient, adjusting for tied ranks:

Student	Subject A	Subject B
A	50	60
B	60	70
C	50	60
D	80	90
E	70	80
F	60	70

11. Fit a straight-line trend by the method of least squares, tabulate the trend values and show the values on a graph from the following figure of production of sugar factory. Predict the production for the next five years.

Year	1999	2000	2001	2002	2003	2004	2005
Production ('000' tons)	80	90	92	83	94	99	92

