



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION – NOV/DEC 2025

COMMERCE – I SEMESTER BCOM

25BCO16: QUANTITATIVE 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. (7X2=14)
- Define Statistics.
 - How does classification of data make interpretation easier?
 - Give one example of quantitative and qualitative variable.
 - Explain with an example the difference between discrete variable and continuous variable.
 - List the types of averages studied in Statistics.
 - Mention any two requisites of a good average.
 - What is meant by variability?
 - Define Weighted Index Number.
 - What is meant by Factor Reversal test?
 - If Fisher's Ideal Index = 100, what does it signify?

SECTION-B

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

- Discuss the features of a good classification of data.
- Draw a Pie diagram for the following data:

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



4. Following are the marks obtained by students of a class in Statistics. Calculate arithmetic mean.

Marks (x)	No. of students(y)
35	3
40	8
45	12
50	9
55	4
60	7
65	15
70	5
75	10
80	7
85	5
90	3
95	2

5. Calculate the standard deviation from the following data:

Wages in (Rs.)	100	200	300	400	500	600
No. of workers	8	12	20	10	7	3

6. Differentiate between absolute and relative measures of dispersion.

SECTION-C

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

(3X14=42)

7. "Statistics is both a science and an art." Justify this statement by explaining the objectives and scope of statistics with practical illustrations from business or social research.
8. Industrial finance in India showed great variation in respect of sources during the first, second and third plans. There were two main sources, viz., internal and external.

The former had two sources: depreciation and free reserves; and free reserves and surplus. The latter had three sources: capital issues, borrowing and 'other sources'.

During the first plan internal and external sources accounted for 62% and 38% of the total and in this depreciation, fresh capital and 'other sources' formed 29%, 7% and 10.6% respectively.

During the second plan internal sources decreased by 17.3% and external sources increased by 17.3% as compared to the first plan and depreciation was 24.5%. The external finance during the same period consisted of fresh capital 10.9% and borrowings 28.9%.

Compared to the second plan, during the third plan external finance decreased by 4.4% and borrowings and other sources were 29.4% and 14.9%.

During the third plan, internal finance increased by 4.4% and free reserves and surplus formed 18.6%. **Tabulate the above** information with the given details as clearly as possible observing the rules of tabulation.



9. Calculate the arithmetic mean for the following data:

Marks (x)	No. of students (y)
Less than 20	10
Less than 30	18
Less than 40	25
Less than 50	32
Less than 60	43
Less than 70	61
Less than 80	67
Less than 90	85
Less than 100	100

10. Calculate Karl Pearson's co-efficient of Skewness for the following frequency distribution of profit earned by 100 partnership firms during the year 2024:

Profits (in '000)	No. of partnership firm
More than 10	100
More than 20	97
More than 30	90
More than 40	70
More than 50	40
More than 60	25
More than 70	15
More than 80	8
More than 90	3

11. Compute the Fisher Ideal Index number and show that it satisfies TRT and FR

Commodities	Base year (Quantity)	Base year (price)	Current year (Quantity)	Current year (Price)
M	112	12	100	20
N	240	4	200	4
O	120	8	120	12
P	48	20	60	24
Q	52	16	80	24

