



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

NAAC A GRADE • AFFILIATED TO BANGALORE UNIVERSITY • AICTE APPROVED • 2(F) & 12 (B) RECOGNITION OF UGC • ISO 9001:2015 CERTIFIED
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END SEMESTER EXAMINATION – NOV/DEC 2025

COMMERCE – I SEMESTER BCOM (Repeaters)

24BCO16A: BUSINESS QUANTITATIVE 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)
- Differentiate between percent and percentage.
 - Calculate 25% of 270.
 - A & B are friends. A owns Rs.43 as pocket money. Split the amount between the two in the ratio of 4:3.
 - What is a null set?
 - Define union and intersection of sets.
 - State any two properties of determinants.
 - Give the meaning of Linear Equation.
 - $6 + 2x = 1 + 3x$, find 'x'
 - What is factorial notation?
 - What is a perpetuity?

SECTION-B

- Answer any **THREE** questions. Each question carries **EIGHT** marks. (3X8=24)
- A shopkeeper increases the price of an article by 15%. Later, he gives a discount of 10%. Find the net percentage change in the price.
 - If $10(x - 4) - 15(x - 3) = 3(3 + x) - 20$, find x. (4)
 - If $3(4x + 1) - (4x - 1) = 2(x + 5)$, find x. (4)
 - Using Venn diagram, illustrate the concept of union and intersection of sets
 - Solve using elimination method.
 $3x + 7y = 13$
 $5x - 2y = 8$ (4)
 - Solve for x using factorization method.
 $2x^2 + 5x - 3 = 0$ (4)
 - Find the number of ways of selecting 3 students from a group of 7.



SECTION-C

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

(3X14=42)

7. A and B together can complete a work in 20 days. A is 25% more efficient than B. In how many days can each complete the work individually?
8. How many different committees of 4 can be formed from 6 men and 5 women if the committee must include at least 2 women?

9. a) Solve for x. Using formula method;

$$12x^2 - 23x - 24 = 0$$

(7)

b) $2x + 3y = 13$

$$4x + 5y = 23$$

Use elimination method to solve x and y

(7)

10. Discuss the theory of compounding and its importance in SIP and SWP planning.
11. A survey of 100 students revealed that 60 like mathematics, 45 like statistics, and 25 like both. Find how many like only mathematics, only statistics, and neither. Represent using a Venn diagram.

