



DCAF102

Reg. No.

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I Semester B.Com.(Accounting and Finance) Degree Examination, April - 2023
COMMERCE

Quantitative Aptitude For Business Decisions
(NEP Scheme Freshers and Repeaters)

Paper : 1.2

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

Answers should be written in English only.

SECTION - A

Answer **any FIVE** of the following questions. Each question carries 2 marks. (5×2=10)

1. a) What is meant by Rational Numbers?
- b) Define Geometric progression.
- c) Find the simple interest on Rs. 5000 at 10% for 3 years. Find also the amount.
- d) Find the true discount and the present worth of a bill for Rs. 1660 due in 9 months at 5% per annum.
- e) Write the types of equations?
- f) What is meant by Inverse proportion?
- g) If $[x \ 6] + [7 \ y] = [14 \ 8]$ find x and y .



SECTION - B

Answer **any FOUR** of the following questions. Each question carries 5 marks. (4×5=20)

2. If first term of an AP is 7, difference is 3 and last term is 43. Find the number of terms.
3. What would be the amount of compound interest on Rs. 5,000 at 5% rate of interest P.A. for 3 years.
4. The monthly income and the monthly expenditure of a man are Rs. 15,000 and Rs. 10,500. Find the ratio between his savings and income.

[P.T.O.]



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5. Solve x and y by elimination method.

$$2x + 3y = 5$$

$$3x + 5y = 8$$

6. Find the inverse of matrix $A = \begin{bmatrix} 2 & -1 \\ 3 & -2 \end{bmatrix}$.

SECTION - C

Answer any **TWO** of the following questions. Each question carries 12 marks. ($2 \times 12 = 24$)

7. a) If $A = \begin{bmatrix} 2 & 1 \\ 3 & 7 \\ 5 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 2 & -3 & 1 \\ 4 & -2 & 5 \end{bmatrix}$ prove $(AB)' = B' A'$.

b) Mrs. Sheela borrowed Rs. 30000 for 6 years calculate compound interest at 12% P.A. reckoned quarterly.

8. a) Solve by formula method.

$$15x^2 - 15 = -16x$$

b) The present ages of three persons are in the ratio of 4:7:9. The sum of their ages, 8 years ago, was 56. Find their present ages.

9. a) The sum of three numbers in A.P. is 30 and product is 360. Find the numbers.

b) Solve by Cramer's rule

$$6x + 5y = 2$$

$$4x - 3y = 14$$

SECTION - D

Answer any **ONE** of the following questions. Each question carries 6 marks. ($1 \times 6 = 6$)

10. A person is employed in a company at Rs. 3,000 per month and is promised an increment of Rs. 200 per year. Find the total amount which he receives in 25 years and the rate at which he is paid in the last year.

11. A man buys 2 dozens of pencils, 5 dozens of pens and 12 dozens of note books. Pencils cost Rs. 30 per dozen, pen cost Rs. 60 per dozen and note books Rs. 100 per dozen. Represent the quantities bought by the man in row matrix and prices by a column matrix and find total cost.