



796446

DCAF113

Reg. No.

--	--	--	--	--	--	--	--	--	--

I Semester B.Com. (A&F) Degree Examination, December/January-2025/26

COMMERCE

Quantitative Aptitude

(SEP Scheme 2024-25 Onwards)

Paper-1.3

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer All the Sections.
2. Answers should be written completely in English only.



SECTION-A

Answer any Five sub-questions. Each sub-question carries 2 marks. (5×2=10)

1. a) What are prime numbers?
b) Solve: $3x^2 - 81 = 0$.
c) What is sub-matrix?
d) Give the meaning of duplicate ratio with an example.
e) Find the HCF of 60 and 96.
f) What is Venn diagram?
g) State the types of equation.
h) A mobile phone back cover is reduced by 25% of its price in a sale. The old price was Rs.180. Find the new price.

[P.T.O.]

SECTION-B

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

2. Find the LCM of 15, 28, 108, and 105.
3. Compute Simple Interest on Rs.40,000 at the rate of 7½%. The sum of amount borrowed on 1st January 2023 and repaid on 31st December 2024.
4. Solve for x : $\frac{x+20}{5} - 8 = \frac{x}{4}$.
5. If $A = \begin{bmatrix} 1 & 5 & 6 \\ 7 & 8 & 9 \\ 0 & 1 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 4 & -2 & 3 \\ 0 & 1 & 2 \\ 3 & 4 & 5 \end{bmatrix}$, $C = \begin{bmatrix} 2 & 3 & 1 \\ 1 & 4 & 5 \\ 3 & 8 & 6 \end{bmatrix}$ Find $A+2B-3C$.
6. If LOVE is coded as OLEV, then YEAR will be coded as?
7. Divide Rs.1647 into three parts such that $\frac{3^{\text{th}}}{7}$ of the first, $\frac{2^{\text{rd}}}{3}$ of the second and $\frac{4^{\text{th}}}{5}$ of the third are equal.

SECTION-C

Answer any Three of the following questions. Each question carries 15 marks.

(3×15=45)

8. a) Calculate the amount and the interest on Rs.10,000 at 5% per annum compounded annually for 3 years.
- b) Divide Rs.3,900 into three parts in the ratio of $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$.
9. a) Solve for x : $\begin{vmatrix} 2 & 4 & 9 \\ 4 & x & 10 \\ -3 & 1 & -2 \end{vmatrix} = 0$.
- b) If $A = \begin{bmatrix} 1 & 1 & 2 \\ 0 & 2 & 3 \\ -1 & 3 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 2 & -3 & 1 \\ 4 & 3 & -2 \\ 7 & 8 & 9 \end{bmatrix}$. Find AB .

10. a) A and B have incomes in the ratio of 5:3. Their expenses are in the ratio of 8:5 and the savings are in the ratio of 2:1. If the total annual savings of A and B is Rs.3600. Find their individual incomes.
- b) Find the H.C.F of 210, 385 and 730 by division method.
11. a) What sum of money will amount to Rs.1000 in two years @ 5% p.a. If compound interest payable half yearly?
- b) Solve by the method of Elimination
 $3x+2y+12=0$
 $4x-5y-7=0$
12. a) A bill for Rs.10,000 was drawn on 1-3-2024 due 6 months hence. It was discounted on 23-6-2011 at 6% p.a. Find.
 - i) Bankers Discount
 - ii) Discounted value
 - iii) True Discount
 - iv) Bankers Gain
- b) 4 workers earn Rs.2,250 as wages in 6 days. At the same ratio how much will 8 workers earn in 9 days?

SECTION-D

Answer the following question. The question carries 5 marks.

(1×5=5)

13. Give the formula for calculating present value of an annuity. Also explain the same with imaginary figures.
-