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II Semester B.Com. (Regular) LSCM/T&T/IGAS Degree Examination,
June/July - 2025

COMMERCE

Business Mathematics

(Repeaters)

(NEP Scheme)

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

Answers should be written completely written in English only.

SECTION - A

I. Answer any Five of the following questions. Each question carries 2 marks.

(5×2=10)

1. a) What is a prime number?
- b) Solve $= (3^2)^3$
- c) Solve $= \frac{5}{x} = \frac{8}{16}$
- d) What is a Arithmetic progression.
- e) Find simple Interest in Rs.4,000/- at 12% Interest P.A. for 6 years Interest paid half yearly.
- f) Distribute Rs.10,000 among A,B,C in the Ratio of 2:3:5.
- g) What is a Transpose of Matrix?

SECTION - B

II. Answer any Four of the following questions. Each question carries 5 marks.

(4×5=20)

2. Solve the equation $2(x - 3) = 9 + 3(x - 9)$.
3. Find the Sum of 19 terms of AP 5,9,13,.....
4. Find compound interest on Rs.50,000 @ 6% p.a. for 3 years? Interest paid annually.
5. If 40 men can do a piece of work in 90 days, how many men will be required to do in 50 days.

[P.T.O.]

6. If $A = \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$ $B = \begin{bmatrix} 1 & -1 \\ -3 & 2 \end{bmatrix}$ find AB and BA . Is $AB=BA$.

SECTION-C

III. Answer any Two of the following questions. Each question carries 12 marks.

(2×12=24)

7. Find Inverse of the matrix $A = \begin{bmatrix} 1 & 0 & -4 \\ -2 & 2 & 5 \\ 3 & -1 & 2 \end{bmatrix}$

8. a) The sum of 3 numbers in G.P is. 35 their product is 1000/- Find the numbers.

b) Solve by Crammer's rule $2x + 3y = 7$

$$3x + 5y = 9$$

9. a) The difference between B.D and T.D in a bill due after 6 months 4% p.a. is Rs.24 Find out B.D., T.D and bill amount.

b) Find simple interest in Rs.50,000 for 3 years @ 12½% interest p.a.

SECTION-D

IV. Answer any One of the following question. Each question carries 6 marks. (1×6=6)

10. A man divided this property among his 3 sons in the following manner. He gave 2500

to elderson, $\frac{5}{12}$ of the whole property to the second son and to the youngest as much as to the first and second together. How much did the youngest get?

11. Keerthi buys 8 dozen of pens, 10 dozen of pencils and 4 dozens of rubber. Pens cost 18/- per dozen, pencils Rs.9/- per dozen and rubber Rs.6/- per dozen, represents the quantities bought by a row matrix and prices by a coloumn matrix and hence obtain total cost.