

Note :- Section **B** is compulsory. Attempt any **Two** Questions from Section **C**.

SECTION-B**2. Write short answers to any Six parts.**

(6 x 2 = 12)

- Divide Rs 15000 in the ratio 2:4:6.
- What is the total amount of commission on sale to Rs. 25000. If the rate of commission is 5% on the first Rs. 15000 and 6% on over Rs. 10000.
- State the formula of annuity due with usual notations.
- Define simple interest formula.
- Solve the linear equation $3x + 5 = 8$
- Draw the graph of $2y = 6$.
- Define Quadratic Equation in standard form.
- Solve by factorization $2x^2 + 9x + 10 = 0$
- Find the sum and product of the roots $2x^2 + 3x - 6 = 0$

3. Write short answers to any Six parts.

(6 x 2 = 12)

- Define odd function and give one example.
- Find x and y intercepts of the equation $y = 5x + 9$
- Find sum of $(111)_2$ and $(10)_2$
- Solve $(1101)_2 - (11)_2$
- Evaluate $(101)_2 \times (11)_2$
- Differentiate between square and rectangular matrix.
- What do you know about Adjoint of a matrix?
- Find x , if $\begin{bmatrix} 2 & 1 \\ 3 & x \end{bmatrix}$ is a singular matrix.
- Find multiplicative inverse of $\begin{bmatrix} 4 & 3 \\ 1 & 6 \end{bmatrix}$

SECTION-C**Each question carries 4 + 4 = 8 Marks**

- A man spends 97% of his income and saves Rs. 600. What is his income?
 - At what rate Rs. 5000/- is double in 5 years at compound interest?
- Solve the equation $x^2 - 8x + 15 = 0$ by completing square.
 - Sketch the graph of $y = 9 - x^2$
- If $A = \begin{bmatrix} 2 & 1 \\ 3 & -1 \end{bmatrix}$ find inverse of matrix A.
 - Multiply $(11011)_2$ by $(1101)_2$

CANCELLED