گروپ اول

Roll No. of Candidate: _____

Business Math (Commerce Group) (INTERMEDIATE PART-I) 319 **Paper: I**
(New Scheme)
Time: 15 Minutes **OBJECTIVE** **Marks: 10**
Code: 6641

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave other blank.

1. 1. The missing term in the proportion: $x : 5 :: 15 : 25$ is

A) 3 B) 5 C) 15 D) 25

2. 160 is 20% of what number

A) 80 B) 800 C) 8000 D) 80000

3. Interest is classified in classes:

A) five B) four C) three D) two

4. Annuity is used in:

A) equation B) function C) mathematics of finance D) interest

5. If $6x - 3 = 0$ what will be the value of 'x' ?

A) 2 B) 9 C) 18 D) $\frac{1}{2}$

6. The roots of Quadratic equation are equal if:

A) $b^2 - 4ac = 0$ B) $b^2 - 4ac > 0$ C) $b^2 - 4ac < 0$ D) $b^2 + 4ac < 0$

7. If $f(x) = c$ then 'f' is called:

A) implicit function B) identity function C) quadratic function D) constant function

8. If $x + y = 6$, $x - y = 10$ then the values of 'x' and 'y' are:

A) $x = 6$, $y = 10$ B) $x = 4$, $y = 6$ C) $x = 6$, $y = 4$ D) $x = 8$, $y = -2$

9. The order of the matrix $\begin{bmatrix} a & b \\ c & d \end{bmatrix}$ is:

A) 1×2 B) 2×1 C) 2×2 D) 2×3

10. $(111)_2$ in decimal number system is:

A) 7 B) 6 C) 5 D) 8

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Business Math (Commerce Group) (INTERMEDIATE PART-I) 319 **Paper: I**
(New Scheme)
Time: 1:45 Hours **SUBJECTIVE** **Marks: 40**
Note: Section I is compulsory. Attempt any TWO (2) questions from Section II.

(SECTION – I)

2. Write short answers to any SIX questions. **(2 × 6 = 12)**

i. Express in reduced form; 24 : 64
ii. If x : 4 :: 9 : 12 Find value of 'x'
iii. 72 is what percentage of 360.
iv. 600 is 10% of what amount.
v. Define simple interest and write its formula.
vi. Define principal.
vii. Write any two types of annuity.
viii. Solve for x, $3(4x-2) = 4(2x+3)$
ix. Solve the equation: $\frac{2x}{7} + 2 = 0$

3. Write short answers to any SIX questions. **(2 × 6 = 12)**

i. If $3x^2 - 5x + 2 = 0$. Find $b^2 - 4ac$
ii. Solve: $3x^2 - 10x + 3 = 0$
iii. Solve the equation: $2x - y = 7$ and $x + y = 4$
iv. Define constant function.
v. Find the equation of the line if $m = 2$ and $c = 5$
vi. Define Scalar Matrix.
vii. If $A = \begin{bmatrix} -2 & 6 \\ 4 & 7 \end{bmatrix}$. Find A^{-1}
viii. Convert 19 into binary system.
ix. Convert $(11101)_2$ into decimal system.

(SECTION – II)

4. (a) If a television is purchased for Rs. 7000 and sold for Rs. 7500. Find the profit %age. 4

(b) Find the present value of an Annuity of Rs. 400 paid at the end of each year for 5 years, if the interest rate is 5% compounded Annually. 4

5. (a) Solve $4x^2 + 7x - 1 = 0$, by using Quadratic formula. 4

(b) A manufacturer produces items at a daily cost Rs. 10 and sells these for Rs. 20 per item. His expenditure is Rs. 500. What is his break-even point? 4

6. (a) Solve: $2x_1 - 3x_2 = 1$, $x_1 + 4x_2 = 6$ by Cramer's Rule. 4

(b) Simplify: $[(10111011)_2 - (101110)_2] + (10000000)_2$ 4

259-319-23000

Guj – 11–19