

Paper: MathsTotal Marks: 15Month Test: Annual

Obt. Marks: _____

Theme/Unit: CompleteGrand Total: 75

Objective: ID: _____

Time: 20 minsRoll No: _____ class: 9th

Section: _____

**Q. No. 1: encircle the correct option: /15**

- i). Matrix $A + B$ may be found if order of A and B is:
 a. Null b. Same c. Identity d. Square
- ii). Real part of $2ab(i+i^2)$ is:
 a. $2ab$ b. $-2ab$ c. $2abi$ d. $-2abi$
- iii). The logarithm of unity to any base:
 a. 1 b. 10 c. E d. 0
- iv). What will be added to complete the square of $9a^2 - 12ab$?
 a. $-16b^2$ b. $16b^2$ c. $4b^2$ d. $-4b^2$
- v). The product of two algebraic expressions is equal to the _____.
 a. Product b. Sum c. Difference
- vi). If x is no longer than 10, then:
 a. $x \geq 8$ b. $x \leq 10$ c. $x < 10$ d. $x > 10$
- vii). Find m so that $x^2 + 4x + m$ is a complete square.
 a. 8 b. -8 c. 4 d. 16
- viii). $X = \underline{\hspace{2cm}}$ is a solution of inequality $-2 < x < \frac{3}{2}$
 a. -5 b. 3 c. 0 d. $\frac{2}{3}$
- ix). The equation $x - 0.3x = 0.7x$ is:
 a. Identity b. Linear c. Rational d. None
- x). The point $S(1, -3)$ lies in quadratic:
 a. 1st b. 2nd c. 3rd d. 4th
- xi). If $(x, 0) = (0, y)$ then (x, y) is
 a. (0, 1) b. (1, 0) c. (1, 1) d. (0, 0)
- xii). Mid point of the points (2, 2) and (0, 0) is:
 a. (1, 1) b. (1, 0) c. (0, 0) d. (0, 1)
- xiii). In parallelogram opposite sides are:
 a. Equal b. Intersect c. Congruent d. Parallel
- xiv). Bisection means to divide the line into parts?
 a. One b. Two c. Three d. None
- xv). The distance b/w a line and a point on it is:
 a. Zero b. One c. Two d. Three

Paper: MathsTotal Marks: 60Month Test: Annual

Obt. Marks: _____

Theme/Unit: CompleteGrand Total: 75

Subjective:

ID: _____

Time: 2 hours

Roll No: _____

class: 9th

Section: _____

**Q. No. 2: Answer the following Question:****/12**

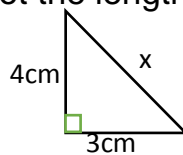
- 1) If $\begin{bmatrix} a+3 & 4 \\ 6 & b-1 \end{bmatrix} = \begin{bmatrix} -3 & 4 \\ 6 & 2 \end{bmatrix}$ find a and b.
- 2) Define and example Adjoint of a matrix.
- 3) Simplify: $\sqrt[3]{16x^4y^5}$
- 4) Express: $\frac{1}{1+2i}$ in standard form a+bi.
- 5) Express in scientific notation: 0.00643
- 6) Evaluate: 291.3×42.36

Q. No. 3: Answer the following Questions:**/12**

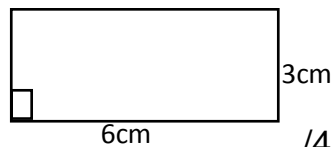
- 1) Evaluate: $\frac{3x^2\sqrt{y}+6}{5(x+y)}$ if x= -4, y=9.
- 2) If a+b=10 and 1-b=6 then find the value of: a^2+b^2
- 3) Factorize: $6x^4-96$
- 4) Find L. C. M by factorize: $4(x^4-1)$, $6(x^3 - x^2 - x + 1)$
- 5) Solve: $|8x-3| = |4x+5|$
- 6) Solve: $3x+1 < 5x - 4$

Q. No. 4: answer the following Questions:**/12**

- 1) Draw the graph $y=0.62x$
- 2) Solve the equation by graphically $x-y=1$, $x+y = \frac{1}{2}$
- 3) Define scalene triangle.
- 4) 3cm, 4cm, and 7cm are not the lengths of triangle. Give the reason.
- 5) Find the unknown value:



- 6) Find the area of the following:

**Q. No. 5: a: Solve by cramer's rule:**

$$3x - 2y = 1, \quad -2x + 3y = 2$$

/4

(b). Simplify: $\sqrt{\frac{(216)^{\frac{2}{3}} \times (25)^{\frac{1}{2}}}{(.04)^{-\frac{1}{2}}}}$ **/4**

Q. No. 6: (a). Use Log table: $\frac{(438)^3\sqrt{0.056}}{(388)^4}$ **/4**

(b). For what value of k is (x+4) the H.C.F of $x^2+x - (2k+2)$ and $2x^2+kx - 12$? **/4**

Q.7: Prove that any point inside an angle equidistant from its arms is on the bisector of it:/8