Std 10 (English)   **Mathematics Part - I**

Time 1HRS	Chapter 2nd chp	Marks 20

Q.1   **Multiple Choice Questions**   2

1   Which of the following equation has 2 as a root?

a. $x^2 - 4x + 5 = 0$ b. $x^2 + 3x - 12 = 0$

c. $2x^2 - 7x + 6 = 0$ d. $3x^2 - 6x - 2 = 0$

2   The root of the quadratic equation $x^2 - 3x - 4 = 0$ are.

a. - 4 , 1   b. 4, - 1   c. 4 , 1   d. - 4 , - 1

Q.2   **Attempt the following (Activity)**   2

1   If one root of the quadratic equation $5m^2 + 2m + k = 0$ is $\frac{-7}{5}$ then find the value of k by completing the

following activity.

$\frac{-7}{5}$ is the root of equation $5m^2 + 2m + k = 0$

$\therefore$ $\frac{-7}{5}$ is satisfies the given equation.

Substituting m = $\frac{-7}{5}$ in given equation.

$\therefore$ $5 \times$ _____ + $2 \times$ _____ + k = 0

$\therefore$ _____ + _____ + k = 0

$\therefore$ 7 + k = 0

$\therefore$ k = _____

Q.3   **Answer the following (Any One)**   2

1   Solve : $7y = -3y^2 - 4$

2   From the quadratic equation form the roots given below.

$\frac{1}{2}, -\frac{1}{2}$

Q.4   **Answer the following (Non textual)**   8

1   Solve the following quadratic equations: $12\left(x^2 + \frac{1}{x^2}\right) - 56\left(x + \frac{1}{x}\right) + 89 = 0$.

2   Solve the following quadratic equations: $(y^2 - 6y)^2 - 4(y^2 - 6y + 3) - 20 = 0$.

Q.5   **Answer the following**   3

1   If 460 is divided by a natural number then quotient is 6 more than 5 times the divisor and remainder is 1 then find quotient and divisor.

Q.6   **Creative questions**   3

1   Construct a word problem on quadratic equation (age related problem) so that one answer will be 12. Solve the problem you have constructed.

YOUR FILGHT , OUR WINGS.