**Self Assignment - 1**

**Topic : QUADRATIC EQUATIONS**

# Class : 10th. Max. Marks : 25

# ANSWER THE FOLLOWING QUESTIONS 10 × ½ = 5M

1. What is the quadratic equation of roots p and q ?
2. If ‘k’ is root of ax2 + bx + c = 0 then what is the value of ak2 + bk + c ?
3. Which of the following is not a quadratic equation?
   1. x + 1/x =5. B) x2 + 1/x2 = 1. C) (x + 1)(x- 1) = 0 D) none
4. Write quadratic formula ?
5. For what value of ‘p’ the roots of x2 + px + 4 = 0 will be equal?
6. The path of projective is defined by \_\_\_\_\_\_\_\_\_\_\_\_ function.
7. See at last. 8. Statement A: If roots of ax2 + bx + c = 0 are equal then each root is −  .

2𝑎 Statement B : If roots of ax2 + bx + c = 0 are equal then b2 : ac = 1: 4.

* 1. Both are true. B) Both are false. C) only A is true. D) only B

1. If 1 is root of the equation 2x2 – kx + 3 = 0 then find the value of ‘k’ ?
2. What is discriminant ?

# ANSWER THE FOLLOWING QUESTIONS 4 × 1 = 4M

1. If p and q are roots of x2 – ax + b = 0 then find 1/a + 1/b ?
2. Write the nature of the roots of 5x2 - 2x - 7 = 0?
3. Show that x2 + x + 1 = 0 have no real roots ?
4. “ The product of two consecutive odd integers is 306”. Represent this statement in the from of quadratic equation?

# ANSWER THE FOLLOWING QUESTIONS 4 × 2 = 8 M

1. If 2 is root of x2 – 5x + k = 0 then find k value and the another root ?
2. Find the solutions of of 3x2 – 5x + 2 = 0 by applying the quadratic formula?
3. Sum of a number and it’s reciprocal is 10/3. Find the number ?
4. Find the sum and product of the roots of the equation x2 - 4√3 x + 9 = 0.

# ANSWER THE FOLLOWING QUESTIONS 2 × 4 = 8 M

1. Johan’s mother is 26 years older than him. The product of their ages after 3 years will be 360. Find their present ages ?

Or

A motor boat heads upstream a distance of 24km on a river whose current is running at 3km per hour. The trip up and back takes 6hours. Assuming that the boat maintained a constant speed, what was it’s speed ?

1. Solve 3x2 – 5x + 2 = 0 by the method of completing the square ?

Or

1 1

Find the roots of the equation − =3 ( x is not equal to 0 or 2).

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