

FAROOQ SATTAR OOMERBHOY HIGH SCHOOL FOR BOYS

1st Unit Test - August 2022

Std : X

Subject : ALGEBRA

Marks : 20

Time : 1 hour

Q1A. Choose correct alternative from options given below: [3]

1. Find the value of :

(A) -1 (B) -2 (C) 1 (D) 2

2. Which one is the quadratic equation?

(A) $5/x - = x^2$ (B) $x(x + 5)$ (C) $n - 1 = 2n$ (D) $1/x^2(x + 2)$

3. To draw graph of $4X + 5Y = 19$. Find y when $x = 1$.

(A) 4 (B) 3 (C) 2 (D) -3

4. One of the roots of equation $x^2 + mx - 5 = 0$ is 2 ; find m.

(A) -2 (B) -1/2 (C) 1/2 (D) 2

Q1B. Solve the following : [3]

1. Complete the following table to draw the graph of $2x - 6y = 3$

x	-5	<input type="text"/>
y	<input type="text"/>	0
x,y	<input type="text"/>	<input type="text"/>

2. Classify the following polynomials as Linear, Quadratic :

$5x + 9$, $x^2 + 3x - 5$, $3x - 7$, $3x^2 - 5x$, $5x^2$

Linear Polynomial	Quadratic Polynomial
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

3. Solve the quadratic equation by factorization : $m^2 - 14m + 13 = 0$.

Q2. Solve the following : (any 2) [4]

1. Write the equation in the form of $ax^2 + bx + c = 0$ then write the values of

a, b, c for the equation $2y = 10 - y^2$

2. Solve the given simultaneous equations : $4m - 2n = -4$; $4m + 3n = 16$.

3. Find k if $x = 3$ is a root of equation $kx^2 - 10x + 3 = 0$.