

ECAT Mathematics Chapter 6 Quadratic Equations Online Test

Sr	Questions	Answers Choice
1	There are _____ basic techniques for solving a quadratic equation	A. Two B. Three C. Four D. None of these
2	$(2 + w)(2 + w^2) =$ _____	A. 1 B. 2 C. 3 D. 0
3	$w^{28} + w^{38} =$ _____	A. 0 B. 1 C. w D. -1
4	$w^{73} =$ _____	A. 0 B. 1 C. w D. w^{22}
5	$w^{29} =$ _____	A. 0 B. 1 C. w D. w^{22}
6	For any integer k, $w^n =$ _____ when $n = 3k$	A. 1 B. 2 C. 0 D. -4
7	The product of cube roots of unity is	A. Zero B. 1 C. -1 D. None of these
8	If $b^2 - 4ac = 0$ then the roots of the equation are	A. Real and distinct B. Real and equal C. Imaginary D. None of these
9	If $b^2 - 4ac$ is positive then the roots of the equation are	A. Real B. Imaginary C. Positive D. Negative
10	The roots of the equation will be irrational if $b^2 - 4ac$ is	A. Positive and perfect square B. Positive but not a perfect square C. Negative D. Zero
11	The roots of the equations will be equal if $b^2 - 4ac$ is	A. Positive B. Negative C. 1 D. Zero
12	If w is a cube root of unity then $1 + w + w^2 =$ _____	A. 1 B. 2 C. 0 D. -1
13	If the roots of $3x^2 + kx + 12 = 0$ are equal then $k =$ _____	
14	The discriminant of the quadratic equation $ax^2 + bx + c = 0$ is	A. $b^2 - 4ac$ B. $b^2 + 4ac$ C. $4ac - b^2$ D. $a^2 - 4ac$
15	If one root of the equation $x^2 - 3x + a = 0$ is 2 then $a =$ _____	A. 0 B. 1 C. 2 D. 3
16	Roots of the equation $9x^2 - 12x + 4 = 0$ are	A. Real and equal B. Real and distinct C. Complex

		D. None of these
17	Roots of the equation $2x^2 - 7x + 3 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
18	Roots of the equation $x^2 + 5x - 1 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
19	Roots of the equation $x^2 + 2x + 3 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
20	The roots of the equation $ax^2 + bx + c = 0$ are real and distinct if	A. $b^2 - 4ac < 0$ B. $b^2 - 4ac = 0$ C. $b^2 - 4ac > 0$ D. None of these
21	The roots of the equation $ax^2 + bx + c = 0$ are complex/imaginary if	A. $b^2 - 4ac < 0$ B. $b^2 - 4ac = 0$ C. $b^2 - 4ac > 0$ D. None of these
22	The roots of the equation $ax^2 + bx + c = 0$ are real and equal if	A. $b^2 - 4ac < 0$ B. $b^2 - 4ac = 0$ C. $b^2 - 4ac > 0$ D. None of these
23	If S and P are the sum and the product of roots of a quadratic equation, then the quadratic equation is	A. $x^2 + Sx - P = 0$ B. $x^2 - Sx + P = 0$ C. $x^2 - Sx - P = 0$ D. $x^2 + Sx + P = 0$
24	Question Image	A. c/a B. $-c/a$ C. b/a D. $-b/a$
25	If $3x^4 + 4x^3 + x - 5$ is divided by $x + 1$, then the remainder is	A. 0 B. 7 C. -7 D. 5
26	If $x^3 - x^2 + 5x + 4$ is divided by $x - 2$, then the remainder is	A. 0 B. 2 C. 18 D. 14
27	If $x^4 - 10x^2 - 2x + 4$ is divided by $x + 3$, then the remainder is	A. 1 B. 0 C. 4 D. None of these
28	If $x^3 + 4x^3 - 2x + 5$ is divided by $x - 1$, then the remainder is	A. 8 B. 6 C. 4 D. None of these
29	If a polynomial $P(x)$ is divided by $x + a$, then the remainder is	A. $P(a)$ B. $P(-a)$ C. $P(0)$ D. None of these
30	$2x^3 + 3x + 9$ is a _____	A. Polynomial of degree 3 B. Quadratic equation C. Cubic equation D. Polynomial of degree 2