

Mathematics ECAT Pre Engineering Chapter 6 Quadratic Equations Online Test

Sr	Questions	Answers Choice
1	Roots of the equation $x^2 + 2x + 3 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
2	Question Image	A. Polynomial of degree 0 B. Polynomial of degree 1 C. Polynomial of degree 2 D. Polynomial of degree n
3	If a polynomial $P(x)$ is divided by $x + a$, then the remiander is	A. P(a) B. P(-a) C. P(0) D. None of these
4	The expression x2 - x + 1 has	A. One proper linear factor B. No proper linear factor C. Two proper linear factors D. None of these
5	If the roots of ax^2 + b = 0 are real and distinct then	A. ab > 0 B. a = 0 C. ab < 0 D. a > 0, b > 0
6	The standard parabolic form of the equation $f(x) = x^2 + 4x + 1$ is	A. x(x+4)+1 B. (x+2) ² -3 C. (x+4) ³ + 9 D. x(x-2) ² +1
7	The value of k (k > 0) for which the equation x^2 + kx + 64 = 0 and x^2 - 8x + k = 0 both will have real roots is	A. 8 B16 C64 D. 16
8	If the roots of ax^2 + bx + c =0 are equal in magnitude but opposite in sign, then	A. a = 0 B. b = 0 C. c = 0 D. None of these
9	If $\sin \alpha$ and $\cos \alpha$ are the roots of the equation $px^2 + qx + r = 0$, then	A. p ² + 2pr = 0 B. (p + r) ² = q ² = q ² - r ² C. p ² + q ² - 2pr = 0 D. (p - r) ² = q ² + r ²
10	Question Image	
11	Question Image	
12	The value of x for which the polynomials $x^2 - 1$ and $x^2 - 2x + 1$ vanish simultaneously is	A. 2 B. 1 C1 D2
13	Each complex cube root of unity is square of	A. itself B. 1 C1 D. the other
14	A polynomial of arbitrary degree	A. $f(x) = 0$ B. $f(x) = x$ C. $f(x) = a$ D. $f(x) = ax + b, a \ne 0$
15	Question Image	A. Linear equation B. Quadratic equation C. Cubic equation D. None of these
		A. 3

16	The root of the quadratic equation are	B. 2 C. 1 D. 4
17	w ²⁸ + w ³⁸ =	A. 0 B. 1 C. w D1
18	Question Image	A. 2 B. 4 C. 8 D. 16
19	The vertex of the graph of the quadratic function $f(x) = x^2 - 10$, is	A. (0, -10) B. (-10,0) C. (10,0) D. (0,10)
20	If a,β are the roots of $ax2+bx+c=0$, the equation whose roots are doubled is	A. ay2 +2by+c=0 B. ay2+2by+4c=0 C. ay2+2by+c=0 D. ay2+by+4c=0