


ECAT (Pre-Eng) Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	$4^{1+x} + 4^{1-x} = 10$ is called	A. Reciprocal equation B. Exponential equation C. Radical equation D. None of these
2	Another name of quadratic equation is	A. Polynomial B. 2nd degree polynomial C. Linear equation D. simultaneous equations
3	If $3x^4 + 4x^3 + x - 5$ is divided by $x + 1$, then the remainder is	A. 0 B. 7 C. -7 D. 5
4	Roots of the equation $x^2 + 7x + 12 = 0$ are	A. {3, -4} B. {-3, 4} C. {3, 4} D. {-3, -4}
5	<div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">Question Image</div>	A. (-1, 2) B. (-1, 1) C. (1, 2) D. {-1}
6	$w^{-1} =$ _____	A. 0 B. 1 C. w D. w^2
7	If α, β are the roots of the equation $x^2 - 8x + p = 0$ and $\alpha^2 + \beta^2 = 40$, then value of p is	A. 8 B. 12 C. 10 D. 14
8	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
9	The quadratic equation $8 \sec^2 \theta - 6 \sec \theta + 1 = 0$ has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
10	A quadratic equation has two	A. roots B. degree C. variables D. constants
11	In quadratic equation, if the replacement of y with $-y$ leaves the equation unchanged, then the graph is	A. Straight line B. Circle C. Hyperbola D. Symmetric w.r.t. 0
12	The quadratic formula is	
13	The set of real roots of the equation $\log_{(5x+4)}(2x+3)^3 - \log_{(2x+3)}(10x^2 + 23x + 12) = 1$ is	A. {-1} B. {-3/5} C. Empty set D. {-1/3}
14	<div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">Question Image</div>	A. Two real roots B. Two positive roots C. Two negative roots D. One positive and one negative root
15	If the roots of $3x^2 + kx + 12 = 0$ are equal then $k =$ _____	
16	$(1+w)(1+w^2)(1+w^4)(1+w^8) \dots 50$ factors	A. 0 B. -1 C. 1 D. 2

17	In a quadratic equation with leading co-efficient 1, a student reads the co-obtain the roots as - 15 and -4. The correct roots are	A. 6, 10 B. -6, -10 C. 8, 8 D. -8, -8
18	Question Image 	A. 2 B. 4 C. 8 D. 16
19	Both the roots of the equation $(x - b)(x - c) + (x - c)(x - a) + (x - a)(x - b) = 0$ are always	A. Positive B. Negative C. Real D. None of these
20	$w^4 = \underline{\hspace{2cm}}$	A. 0 B. 1 C. w D. w^{2^2}