

ECAT Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	For any integer k, $w^n = \text{_____}$ when $n = 3k$	A. 1 B. 2 C. 0 D. -4
2	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
3	The solution of equation $x^2 + 2 = 0$ in the set of real number is	A. Infinite set B. Singleton set C. Null set D. None of these
4	A polynomial of arbitrary degree	A. $f(x) = 0$ B. $f(x) = x$ C. $f(x) = a$ D. $f(x) = ax + b, a \neq 0$
5	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
6	For the equation $ x^2 + x - 6 = 0$, the roots are	A. One and only one real number B. Real with sum one C. Real with sum zero D. Real with product zero
7	<input type="text" value="Question Image"/>	A. n if n is even B. 0 for any natural number n C. 1 if in odd D. None of these
8	<input type="text" value="Question Image"/>	A. Linear equation B. Quadratic equation C. Cubic equation D. None of these
9	<input type="text" value="Question Image"/>	A. 1 B. -1 C. 5 D. 2
10	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
11	<input type="text" value="Question Image"/>	
12	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
13	Only one of the root of $ax^2 + bx + c = 0, a \neq 0$ is zero if	A. $c = 0$ B. $c = 0, b \neq 0$ C. $b = 0, c = 0$ D. $b = 0, c \neq 0$
14	A polynomial $P(x)$ has a factor $(x - a)$ if $P(a) =$	A. a B. x C. 1 D. 0
15	The product of the four fourth roots of unity is	A. 0 B. 1 C. -1 D. None of these
16	The condition for polynomial equation $ax^2 + bx + c = 0$ to be quadratic is	A. $a > 0$ B. $a < 0$ C. $a \neq 0$

D. $a \neq 0, b \neq 0$

17 Question Image

18 Question Image

- A. Lies between 4 and 7
- B. Lies between 5 and 9
- C. Has no value between 4 and 7
- D. Has no value between 5 and 9

19 Question Image

- A. (-1, 2)
- B. (-1, 1)
- C. (1, 2)
- D. {-1}

20 If the roots of $ax^2 + b = 0$ are real and distinct then

- A. $ab > 0$
- B. $a = 0$
- C. $ab \leq 0$
- D. $a > 0, b > 0$