


ECAT Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Rational B. Irrational C. Non-real D. Zero
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
3	If $a > 0, b > 0, c > 0$, then the roots of the equation $ax^2 + bx + c = 0$ are	A. Real and negative B. Non-real with negative real parts C. Real and positive D. Nothing can be said
4	The condition for polynomial equation $ax^2 + bx + c = 0$ to be quadratic is	
5	If the roots of $ax^2 + bx + c = 0$ ($a > 0$) be greater than unity, then	A. $a + b + c = 0$ B. $a + b + c > 0$ C. $a + b + c < 0$ D. None of these
6	The roots of the equation $2^{2x} - 10 \cdot 2^x + 16 = 0$ are	A. 2, 8 B. 1, 3 C. 1, 8 D. 2, 3
7	Roots of the equation $x^2 - 7x + 10 = 0$ are	A. {2, 5} B. {-2, 5} C. {2,5} D. {-2,-5}
8	The maximum value of the quadratic function $f(x) = -2x^2 + 20x$, is	A. 4 B. 3 C. 50 D. 7
9	The vertex of the graph of the quadratic function $f(x) = -x^2 + 6x + 1$, is	A. (-3,10) B. (-3,-10) C. (3,10) D. (3,-10)
10	Sum of all the four fourth roots of unity is	A. 1 B. -1 C. i D. 0
11	The polynomial $x - a$ is a factor of the polynomial $f(x)$ if and only if	A. $f(a)$ is positive B. $f(a)$ is negative C. $f(a) = 0$ D. None of these
12	$(x-1)$ is a factor of	A. $2x^3 - 3x^2 + 9$ B. $2x^3 - 5x - 8$ C. $48x^2 - 46x - 9$ D. $x^9 - 1$
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	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
14	If $x^3 - x^2 + 5x + 4$ is divided by $x - 2$, then the remainder is	A. 0 B. 2 C. 18 D. 14
15	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
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Polynomial of degree 0 B. Polynomial of degree 2 C. Quadratic equation D. None of these

17	The sum of the roots of the equation $x^2 - 6x + 2 = 0$ is	A. -6 B. 2 C. -2 D. 6
18	A polynomial of arbitrary degree	A. $f(x) = 0$ B. $f(x) = x$ C. $f(x) = a$ D. $f(x) = ax + b, a \neq 0$
19	If $a(p + q)^2 + bpq + c = 0$ and $a(p + r)^2 + 2bpr + c = 0$, then qr equals	A. $p^2 + c/a$ B. $p^2 + a/c$ C. $p^2 + c/a$ D. $p^2 - c/a$
20		A. 2 B. 4 C. 8 D. 16