

ECAT Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	The cube roots of 8 are	
2	If one root of the equation $ix^2 - 2(i+1)x + (2-i) = 0$ is $2-i$, then the other root is	A. -i B. $2+i$ C. i D. $2-i$
3	$(2+w)(2+w^2) = \underline{\hspace{2cm}}$	A. 1 B. 2 C. 3 D. 0
4	The root of the quadratic equation are	A. 3 B. 2 C. 1 D. 4
5	Roots of the equation $2x^2 - 7x + 3 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
6	Roots of the equation $x^2 - 7x + 10 = 0$ are	A. {2, 5} B. {-2, 5} C. {2, 5} D. {-2, -5}
7	Find a if 1 is a root of the equation $x^2 + ax + 2 = 0$	A. 3 B. -3 C. 2 D. 0
8	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
9	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
10	If $3x^4 + 4x^3 + 5x^2$ is divided by $x+1$, which of the following is the remainder	A. 7 B. -2 C. 6 D. 1
11		A. 15 B. 9 C. 7 D. 8
12	Roots of the equation $9x^2 - 12x + 4 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
13	$5x^3 + 3x - 1$ is a _____	A. Polynomial of degree 3 B. Polynomial of degree 2 C. Polynomial of degree 1 D. Polynomial of degree 0
14	A polynomial $P(x)$ has a factor $(x-a)$ if $P(a) =$	A. a B. x C. 1 D. 0
15	If the roots of $ax^2 + b = 0$ are real and distinct then	A. $ab > 0$ B. $a = 0$ C. $ab < 0$ D. $a > 0, b > 0$
16	The roots of the equations will be equal if $b^2 - 4ac$ is	A. Positive B. Negative C. 1

17	If a polynomial $P(x)$ is divided by $x - a$, then the remainder is	<p>D. Zero</p> <p>A. $P(0)$ B. $P(-a)$ C. $P(a)$ D. None of these</p>
18	If $\sin \alpha$ and $\cos \alpha$ are the roots of the equation $px^2 + qx + r = 0$, then	<p>A. $p^2 - q^2 + r^2 = 0$ B. $(p + r)^2 = q^2 - r^2$ C. $p^2 + q^2 - 2pr = 0$ D. $(p - r)^2 = q^2 + r^2$</p>
19	Which of the following is factor of $x^{n+1} + a^{n+1}$, where n is an odd integer	<p>A. $x - a$ B. $x + a$ C. $2x - a$ D. $2x + a$</p>
20	If $x^2 - 7x + a$ has remainder 1 when divided by $x + 1$, then $a =$ _____	<p>A. -7 B. 7 C. 0 D. None of these</p>