ECAT (Pre-Eng) Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	If $ax^2 + bx + x = 0$ is satisfied by every value of x, then	A. b = 0, c = 0 B. c = 0 C. b = 0 D. a = b = c = 0
2	If a > 0,b > 0, c > 0 then the roots of the equation ax2+ bx + c =0 are	A. Real and negative B. Non-real with negative real parts C. Real and positive D. Nothing can be said
3	If b^2- 4ac is positive then the roots of the equation are	A. Real B. Imaginary C. Positive D. Negative
4	Question Image	
5	If a parabola opens down, then its vertex is at the	A. Right of the parabola B. Left of parabola C. Lowest point on the parabola D. Highest point on the parabola
6	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}
7	Question Image	
8	Question Image	
9	The roots of (x - a)(x - b) = ab x2 are always	A. Real B. Depends upon a C. Depends upon b D. Depends upon a and b
10	Question Image	A. (-1, 2) B. (-1, 1) C. (1, 2) D. {-1}
11	If a polynomial P(x) is divided by x - a, then the remainder is	A. P(o) B. P(-a) C. P(a) D. None of these
12	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
13	For any integer k, w^n= _____ when n = 3k	A. 1 B. 2 C. 0 D. -4
14	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
15	(x-1) is a factor of	A. 2x³- 3x²+9 B. 2x³-5x-8 C. 48x²⁻46x-9 D. x⁹-1
16	If the equation x2+2x-3=0 and x2+3x-k=0 have a common root then the non - zero value of k is	A. 1 B. 3 C. 2 D. 4
17	if one root of the equation ix2 - 2(i + 1) x +(2 - i)= 0 is 2 - i then the other root is	A. -i B. 2 + i C. i

		C. i D. 2 - i
18	Roots of the equation $x^2 + 5x - 1 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
19	Question Image	A. c/a B. -c/a C. b/a D. -b/a
20	Roots of the equation $x^2 - x = 2$ are	A. {2, -1} B. {1, 0} C. {2, 1} D. {-2, 1}