ECAT (Pre-Eng) Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	In quadratic equation $f(x) = ax^2$,if a >0, then the graph of parabola	A. Opens up B. Opens down C. close up D. symmetric w.r.t.x.axis
2	Question Image	
3	The discriminant of the quadratic equation $ax^2 + bx + c = 0$ is	A. b²+ 4ac B. b²- 4ac C. 4ac - b² D. a²- 4ac
4	Roots of the equation $9x^2 - 12x + 4 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
5	Question Image	A. b = c B. a = c C. a = c D. b = 0
6	Roots of the equation $x^2 + 5x - 1 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
7	Question Image	
8	Question Image	A. Rational B. Irrational C. Non-real D. Zero
9	If x - 1 is a factor of x4 - 5x2 + 4 then other factor is	A. (x + 2)2(x - 1) B. (x + 2)(x - 1)2 C. (x+2)(x2- x- 2) D. (x + 2)2(x - 1)2
10	The roots of the equation 4x - 3.2x+2 + 32 = 0 would include	A. 1 and 3 B. 1 and 4 C. 1 and 2 D. 2 and 3
11	Roots of the equation $2x^2 - 7x + 3 = 0$ are	A. Rational B. Irrational C. Complex D. None of these
12	$4^{1+x} + 4^{1-x} = 10$ is called	A. Reciprocal equation B. Exponential equation C. Radical equation D. None of these
13	Root of the equation $3^{x-1} + 3^{1-x} =$ is	A. 2 B. 1 C. 0 D. -1
14	(x-1) is a factor of	A. 2x³-3x²+9 B. 2x³-5x-8 C. 48x²⁻46x-9 D. x⁹-1
15	The equation $(\cos p - 1)x^2 + x(\cos p) + \sin p = 0$ in the variable x, has real roots, then p can	A. (0, 2π) B. (-<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-

15	take any value in the interval	align: center; background-color: rgb(255, 255, 224);">π , -0) C. (0,π) D. None of these
16	If b^2- 4ac is positive then the roots of the equation are	A. Real B. Imaginary C. Positive D. Negative
17	x^4- $3x^3$+ 3x + 1 = 0 is called _____	A. Reciprocal equation B. Exponential equation C. Radical equation D. None of these
18	Sum of all the four forth roots of unity is	A. 1 B. -1 C. i D. 0
19	The solution of equation x2 + 2 = 0 in the set of real number is	A. Infinite set B. Singleton set C. Null set D. None of these
20	If x^2- 7x + a has remainder 1 when divided by x + 1, then a = _____	A. -7 B. 7 C. 0 D. None of these