ECAT Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	For any integer k, w^n= _____ when n = 3k	A. 1 B. 2 C. 0 D. -4
2	(x +a)(x +b)(x +c)(x +) = k, k≠0 is reducible to quadratic form only if	A. a+b=c+d B. a+c=b+d C. a+d=b+c D. All are correct
3	The roots of the equation ax^2+ bx + c = 0 are complex/imaginary if	A. b²- 4ac < 0 B. b²- 4ac = 0 C. b²- 4ac > 0 D. None of these
4	w^{11}= _____	A. 0 B. 1 C. w D. w²
5	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
6	w^4= _____	A. 0 B. 1 C. w D. w²
7	In quadratic equation y=ax^3 +bx+c, if b and c are both zero then the graph is	A. Symmetric w.r.t.y-axis B. Symmetric w.r.t.x-axis C. Straight Line D. Circle
8	(x-1) is a factor of	A. 2x³-3x²+9 B. 2x³-5x-8 C. 48x²⁻46x-9 D. x⁹-1
9	The roots of px2 - (p-q)x-q=0 are	A. equal B. Irrational C. Rational D. Imaginary
10	If$\alpha,\beta$are the roots of ax^2+ bx + c = 0 andα+ h,β+ h are the roots of px^2+ qx + r=0, then h =	
11	The equation (cos p - 1)x^2+ x (cos p) + sin p = 0 in the variable x, has real roots, then p can take any value in the interval	A. (0, 2π) B. (-π , -0) C. (0,π) D. None of these
12	The two parts into which 57 should be divided so that their product is 782 are	A. 43,14 B. 34,23 C. 33,24 D. 44,13
		A. 0

13	Question Image	B. 1 C. 2 D. None of these
14	The quadratic equation 8 $\sec^2\theta$- 6 $\sec\theta$+1 = 0 has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
15	Question Image	A. -1 B. 0 C. 2 D. 1
16	The quadratic formula is	
17	Question Image	
18	If x^2 + px + 1 is a factor of ax^3+ bx +c, then	A. a²+ c²= -ab B. a²- c²= -ab C. a²- c²= ab D. None of these
19	Question Image	A. (a - c)²= b²- c² B. (a - c)²= b²+ c² C. (a + c)²= b²- c² D. (a + c)²= b²+ c²
20	Roots of the equation x^2+ 2x + 3 = 0 are	A. Real and equal B. Real and distinct C. Complex D. None of these