ECAT (Pre-Eng) Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	Question Image	
2	The roots of ax2+bx+c=0 are	A. Rational ⇔ b2 -4 ac ≥ 0 B. Irrational ⇔ b2-4 ac > 0 C. Real ⇔ b2-4 ac ≠ 0 D. Rational⇔ b2-4 ac = 0
3	w^{15}= _____	A. 0 B. 1 C. w D. w²
4	Ifα,β are non-real roots of ax2 + bx +c =0 (a,b,c∈ Q),then	A. α = β B. αβ = 1 C. α = β D. α = 1
5	The roots of px2 - (p-q)x-q=0 are	A. equal B. Irrational C. Rational D. Imaginary
6	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
7	The roots of the equation ax^2+ bx + c = 0 are real and equal if	A. b²- 4ac < 0 B. b²- 4ac = 0 C. b²- 4ac > 0 D. None of these
8	If 3x4 +4x3+x5is divided by x+1 , which of the following is the remainder	A. 7 B. -2 C. 6 D. 1
9	The roots of the equation x2 +6x-7=0,are	A. 1 B. 2 C. 1 and -7 D. -7
10	The roots of the equation 2^{2x}- 10.2^x+ 16 = 0 are	A. 2, 8 B. 1, 3 C. 1, 8 D. 2, 3
11	If x^3+ ax^2- a^2x - $a^3$is divided by x + a, then the remainder is	A. 0 B. a³ C. 2a³ D. -2a³
12	If $3x^4$+ $4x^3$+ x - 5 is divided by x + 1, then the reminder is	A. 0 B. 7 C. -7 D. 5
13	The quadratic equation 8 $\sec^2\theta$- 6 secθ+1 = 0 has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
14	The solution set of x^2- 5x + 6 = 0 is	A. {1, 3} B. {2, 3} C. {1, 2} D. None of these
15	The graph of the quadratic equation is	A. Straight line B. Circle C. Parabola

		D. ellpse
16	(2 + w) (2 + w^2) = _____	A. 1 B. 2 C. 3 D. 0
17	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
18	If one root of 5x2 + 13x + k = 0 be the reciprocal of the other root the value of k is	A. 0 B. 2 C. 1 D. 5
19	w^4= _____	A. 0 B. 1 C. w D. w²
20	The vertex of the graph of the quadratic function f(x) =-x2+6x+1,is	A. (-3,10) B. (-3,-10) C. (3,10) D. (3,-10)