ECAT Mathematics Chapter 6 Quadratic Equations

Sr	Questions	Answers Choice
1	Question Image	
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	The cube roots of 8 are	
4	w^{15}= _____	A. 0 B. 1 C. w D. w²
5	Question Image	A. Only one real solution B. Exactly three real solution C. Exactly one rational solution D. Non-real roots
6	If x - 2 is a factor of ax2- 12x + a = 2a, then a = _____	A. -5 B. 5 C. 0 D. 1
7	w^{4}= _____	A. 0 B. 1 C. w D. w²
8	Question Image	A. 0 B. 1 C. 2 D. None of these
9	w^{-1}= _____	A. 0 B. 1 C. w D. w²
10	The roots of (b-c)x2+(c-a) x+a-b=0 are equal if	A. 2b = a+c B. 2a = b+c C. 2c = a+b D. a + b + c =0
11	In a quadratic equation with leading co-efficient 1, a student reads the co-obtain the roots as - 15 and -4. The correct roots are	A. 6, 10 B. -6, -10 C. 8, 8 D. -8, -8
12	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
13	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
14	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}
15	The maximum value of the quadratic function f(x) = -2x2+20x,is	A. 4 B. 3 C. 50 D. 7
16	The solution set of x^2- 5x + 6 = 0 is	A. {1, 3} B. {2, 3} C. {1, 2}

		D. None of these
17	Sum of all the four forth roots of unity is	A. 1 B. -1 C. i D. 0
18	Which of the following is a factor of $x^3 - 3x^2 + 2x - 6$	A. x + 2 B. x + 3 C. x - 3 D. x - 4
19	w^{-12}= _____	A. 0 B. 1 C. w D. w²
20	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