

## Mathematics ECAT Pre Engineering Chapter 6 Quadratic Equations Online Test

Sr	Questions	Answers Choice
1	Question Image	A. 0 B. $-1-\sqrt{2}$
2	Sum of all the four forth roots of unity is	A. 1 B. -1 C. i D. 0
3	Each complex cube root of unity is square of	A. itself B. 1 C. -1 D. the other
4	A polynomial $P(x)$ has a factor $(x-a)$ if $P(a) =$	A. a B. x C. 1 D. 0
5	If a polynomial $p(x)$ is divided by $x-c$ , then the remainder is	A. $p(x)$ B. $x-c$ C. c D. $P(c)$
6	The synthetic division method is only used to divide a polynomial by	A. quadratic equation B. binomial C. linear equation D. monomial
7	If $x-2$ and $x-1$ both are factors of $x^3-3x^2+2x-4p$ , then P must equal to	A. 1 B. 2 C. 0 D. -2
8	Which of the following is factor of $x^{n+1}+a^{n+1}$ , where n is an odd integer	A. $x-a$ B. $x+a$ C. $2x-a$ D. $2x+a$
9	If $3x^4 + 4x^3 + x^5$ is divided by $x+1$ , which of the following is the remainder	A. 7 B. -2 C. 6 D. 1
10	$(x-1)$ is a factor of	A. $2x^3-3x^2+9$ B. $2x^3-5x-8$ C. $48x^2-46x-9$ D. $x^9-1$
11	Which of the following is factor of $p(x) = 2x^3 + 3x^2 + 3x + 2$ ?	A. $x+1$ B. $2x+1$ C. $3x+1$ D. $2x-1$
12	The maximum value of the quadratic function $f(x) = 2x^2 - 4x + 7$ , is	A. 3 B. 5 C. -3 D. -5
13	The maximum value of the quadratic function $f(x) = -2x^2 + 20x$ , is	A. 4 B. 3 C. 50 D. 7
14	The vertex of the graph of the quadratic function $f(x) = -x^2 + 6x + 1$ , is	A. (-3,10) B. (-3,-10) C. (3,10) D. (3,-10)
15	The vertex of the graph of the quadratic function $f(x) = x^2 - 10$ , is	A. (0, -10) B. (-10,0) C. (10,0) D. (0,10)

16	The minimum value of the quadratic function $f(x) = 5x^2 - 11$ , is	A. -11 B. 6 C. -7 D. 7
17	The minimum value of the quadratic function $f(x) = x^2 + 6x - 2$ , is	A. 11 B. 6 C. -11 D. 13
18	The standard form of the quadratic function $f(x) = -x^2 + 4x + 2$ , is	A. $(x-2)^2 + 6$ B. $-(x-2)^2 + 6$ C. $(x-3)^2 + 5$ D. $(x+4)^2 - 7$
19	The standard parabolic form of the equation $f(x) = x^2 + 4x + 1$ is	A. $x(x+4) + 1$ B. $(x+2)^2 - 3$ C. $(x+4)^2 + 9$ D. $x(x-2)^2 + 1$
20	If $f(x) = ax^2$ , and $a > 0$ , then the lowest point on the parabola is called.	A. Vertex of parabola B. Co-ordinates of parabola C. Roots of the equation D. Coefficient of the equation
21	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
22	The root of the quadratic equation are	A. 3 B. 2 C. 1 D. 4
23	In quadratic equation, if the replacement of $y$ with $-y$ leaves the equation unchanged, then the graph is	A. Straight line B. Circle C. Hyperbola D. Symmetric w.r.t. 0
24	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
25	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
26	The graph of the quadratic equation is	A. Straight line B. Circle C. Parabola D. ellipse
27	The solution of the quadratic equation $x^2 - 7x + 10 = 0$ , is	A. 2 B. 5 C. 2, 5 D. 7
28	the largest degree of the terms in the polynomials is called	A. terms of the polynomial B. degree of a polynomial C. co-efficient D. monomial
29	The roots of the equation $x^2 + 6x - 7 = 0$ , are	A. 1 B. 2 C. 1 and -7 D. -7
30	A quadratic equation has two	A. roots B. degree C. variables D. constants