

ECAT Computer Science Entry Test

Sr	Questions	Answers Choice
1	Question Image	
2	If $f(x) = x^2$ then $f(0)$ is	A. 0 B. 1 C. 2 D. none of these
3	If $f(x) = x^2$ then $f(0)$ is	A. 0 B. 1 C. 2 D. none of these
4	Question Image	A. $f(x) = x^{>2}$ B. $f(x^{>2}) = x$ C. $f(x) = x$ D. none of these
5	If y is an image of x under the function f , then we write	A. $y = f(x)$ B. $x = f(y)$ C. $y = x$ D. none of these
6	There are _____ basic techniques for solving a quadratic equation	A. Two B. Three C. Four D. None of these
7	Question Image	A. image B. pre-image C. constant D. none of these
8	$(2 + w)(2 + w^2) =$ _____	A. 1 B. 2 C. 3 D. 0
9	Question Image	A. images B. pre-images C. constants D. none of these
10	$w^{28} + w^{38} =$ _____	A. 0 B. 1 C. w D. -1
11	$w^{73} =$ _____	A. 0 B. 1 C. w D. $w^{>2}$
12	$w^{29} =$ _____	A. 0 B. 1 C. w D. $w^{>2}$
13	For any integer k , $w^n =$ _____ when $n = 3k$	A. 1 B. 2 C. 0 D. -4
14	Question Image	A. range of f B. domain of f C. both (a) and (b) D. none of these
15	The product of cube roots of unity is	A. Zero B. 1 C. -1 D. None of these
16	If $b^2 - 4ac = 0$ then the roots of the equation are	A. Real and distinct B. Real and equal C. Imaginary

		D. None of these
17	Question Image	A. $x = f(y)$ B. $y = f(x)$ C. $x = f(x)$ D. $y = f(y)$
18	If $b^2 - 4ac$ is positive then the roots of the equation are	A. Real B. Imaginary C. Positive D. Negative
19	A function from X to X is denoted as	B. $f : X \text{ to } Y$ D. $f : Y \text{ to } Y$
20	The roots of the equation will be irrational if $b^2 - 4ac$ is	A. Positive and perfect square B. Positive but not a perfect square C. Negative D. Zero
21	The roots of the equations will be equal if $b^2 - 4ac$ is	A. Positive B. Negative C. 1 D. Zero
22	A function from X to Y is written as	B. $f : X \text{ to } Y$ D. $f : Y \text{ to } Y$
23	If w is a cube root of unity then $1 + w + w^2 =$ _____	A. 1 B. 2 C. 0 D. -1
24	If the roots of $3x^2 + kx + 12 = 0$ are equal then $k =$ _____	
25	A rule or correspondence that assigns to each element x in X a unique element y in Y is called a function from	A. X to X B. X to Y C. Y to X D. none of these
26	A rule that assigns to each elements x in X a unique element y in Y is called a _____	A. domain B. range C. function D. none of these
27	The discriminant of the quadratic equation $ax^2 + bx + c = 0$ is	A. $b^2 + 4ac$ B. $b^2 - 4ac$ C. $4ac - b^2$ D. $a^2 - 4ac$
28	If one root of the equation $x^2 - 3x + a = 0$ is 2 then $a =$ _____	A. 0 B. 1 C. 2 D. 3
29	Roots of the equation $9x^2 - 12x + 4 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
30	Roots of the equation $2x^2 - 7x + 3 = 0$ are	A. Rational B. Irrational C. Complex D. None of these