

ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	There are two middle terms in the expansion of $(a+x)^n$ if n is	A. Even +ve integer B. +ve integer C. Odd +ve integer D. All
2	Question Image	A. A B. -A C. A^2 D. A^{-2}
3	If $(1+x-2x^3)^6 = 1+a_1x + a_2x^2 + a_3x^3 + \dots$ the the value of $a_2 + a_4 + a_6 + \dots + a_{12}$ will be	A. 32 B. 31 C. 64 D. 1024
4	Question Image	
5	The obtuse angle between lines $y = -2$ and $y = x + 2$ is	A. 120° B. 135° C. 150° D. 140°
6	Question Image	A. Rational B. Irrational C. Non-real D. Zero
7	A quadratic equation in x is an equation that can be witten in the form	A. $ax^2 + b = 0$ B. $ax^3 + b^2 + c = 0$ C. $ax^2 + bx + c = 0$ D. $ax^3 + bx^3 + cx = 0$
8	Question Image	
9	Geometric mean between a and b is	
10	If the roots of $ax^2 - bx - c = 0$ change by the same quantity, then the expression in a, b, c that does not change is	
11	The additive inverse of $2/3$ is	A. $3/2$ B. $-2/3$ C. $-3/2$ D. 0
12	If the angle between two vectors with magnitude 6 and 2 is 60° when their scalar product is	A. 12 B. 6 C. 3 D. 0
13	The straight line passing through the focus and perpendicular to the directrix of the conic is known as its	A. Tangent B. axis C. Focal chord D. major or manor axis
14	Question Image	A. Always negative B. Zero C. Always positive D. Infinity
15	The point (x_1, y_1) lies outside the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ if	
16	The exterior angle of the interior angle C of he quadrilateral whose vertices are $A(5,2), B(-2,3), C(-3,-4), D(4,-5)$ is	A. 30° B. 60° C. 45° D. 90°
17	The sample space for tossing a coin twice is	A. {H, T} B. {HH, HT, TH, TT} C. {H, T, HH} D. {HH, HT, TT}

18 i is equal

A. (1 , 0)
B. (0 , 1)
C. (1 , 1)
D. (0 , 0)

19 Question Image

20 Inequalities have _____ symbol

A. 2
B. 3
C. 4
D. 1