

ECAT Pre General Science Mathematics Online Test

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Sr	Questions	Answers Choice
1	$x^2 + x - 5 = 0$ is	A. A polynomial B. An inequality C. An identity D. None
2	A person standing on the bank of a river observes that the angle subtended by a tree of the opposite bank is 60° , when he retreats 40 m from the bank, he finds the angle to be 30° . The height of the tree and the breadth of the river are	
3	The key for opening a door is in a bunch of 10 keys. A man attempts to open the door by trying the keys at random discarding the wrong key. The probability that the door is opened in the 5th trial is	A. 1/10 B. 2/10 C. 3/10 D. 4/10
4	The curve $f(x,y) = 0$ has a central symmetry if	A. $f(-x,-y)=f(x,y)$ B. $f(x,-y)=f(x,y)$ C. $f(-x,y)=f(x,y)$ D. $f(-x,-y)\neq f(x,y)$
5	The domain of y = cos-1 x is	A. $-\infty$ < x < ∞ B. $-1 \le x \le 1$ C. $x \le -1$ or $x \ge 1$ D. None of these
6	If a +b +c =0 then which of the following is true	A. a =b =c =0 B. a,b =b,c =c,a C. a xb=b xc =c xa D. None
7	Sin h ⁻¹ x =	
8	If $3x^4 + 4x^3 + x - 5$ is divided by $x + 1$, then the reminder is	A. 0 B. 7 C7 D. 5
9	The set of rational number is represented by	A. W B. R C. Q' D. <div>Q</div> <div> </div>
		A. ab=-1
10	Question Image	B. ab = 1 C. ab = 2 D. None
11	Question Image	D. none of these
12	Question Image	A. 2 B. 4 C. 8 D. 16
13	The square root of 2i - 20i is	A. ±(5 - 2i) B. ±(5+ 2i) C. (5 - 2i) D. None of these
14	A square matrix A = [aij] is lower triangular matrix when:	A. aij = 0 for all i < j B. bij = 0 C. cij = 0 D. dij =0
15	If $y = 2x$, then	A. y1 -ln2y = 0 B. y2-(ln2)2 y = 0 C. y2-(ln2)y1 = 0 D. All are correct
16	Question Image	
17	The behavior of trigonometric function is called	A. Continuity B. Discontinuity C. Periodicity D. Smoothness

8	Question Image	A. A rational number B. A natural number C. An irrational number D. An integer
9	In a class of 100 students, 60 drink tea, 50 drink coffee and 30 drink both. A student from his class is selected at takes at last one of 2 drinks is	A. 2 / 5 B. 3 / 5 C. 4 / 5 D. None of these
	The first three terms in the expansion of $(1 - x)^{-1}$ are	A. 1 + x + x ² B. 1 - x - x ² C1 -x +x ² D. 1 - x + x ²