

ECAT Pre General Science Mathematics Online Test

Sr	Questions	Answers Choice
1	The 60th part of one minute is called	A. Degree B. Second C. Radian D. None of these
2	$f(x) = \sin x + \cos^2 x$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
3	Question Image	
4	No term of a geometric sequence can be	A. 0 B. 1 C. 2 D. 3
5	If one root of the equation $x^2 - 3x + a = 0$ is 2 then $a =$ _____	A. 0 B. 1 C. 2 D. 3
6	$(ABC)' =$	A. CBA' B. CBA C. C'B'A D. C'B'A'
7	The set $\{1, -1, i, -i\}$ form a group under	A. Addition B. Multiplication C. Subtraction D. None
8	Which of the following statement is true?	A. A set is a collection of non-empty object B. A set is a collection of only numbers C. a set is any collection of things D. a set is well-defined collection of objects
9	Period of $\cos 2x$ is _____	
10	How many different 5-digit even numbers are possible form digit 1,2,4,6,8	A. 4 : 4! B. 4! C. 5! D. 4!+4!
11	If five triangles are constructed having sides of the lengths indicated below, the triangle that will NOT be a right triangle is	A. 8, 15, 17 B. 3, 4, 5 C. 12, 15, 18 D. 5, 12, 13
12	If a, b, c are three non-coplanar vector then $[a + b, b + c, c + a] =$ _____	A. $[a, b, c]$ B. $2[a, b, c]$ C. $[abc] - 2$ D. $2[abc]^2$
13	The tangents drawn from the point P to a circle are real and distinct if	A. P is on the circle B. P is inside the circle C. P is outside the circle D. none of these
14	The behavior of trigonometric function is called	A. Continuity B. Discontinuity C. Periodicity D. Smoothness
15	If S is a sample space and event set $E = \Phi$ then $P(E)$ is	A. > 0 B. 1 C. < 1 D. 0
16	Question Image	A. Associative property of addition B. Commutative property of addition C. Distributive property

D. Additive identity

17 In R the number of identity elements w.r.t. $+$ is

- A. One
- B. Two
- C. Three
- D. Four

18 The probability to get an odd number in a dice thrown once is

- A. $\frac{1}{2}$
- B. $\frac{1}{6}$
- C. $\frac{1}{3}$
- D. 2

19 

20 An improper rational fraction can be reduced by division to a

- A. Proper fraction
- B. Polynomial
- C. mixed form