

ECAT Pre General Science Mathematics Online Test

Sr	Questions	Answers Choice
1	The probability that a slip of number divisible by 4 is picked from the slips bearing numbers 1, 2, 3, ...10 is	A. $\frac{1}{5}$ B. $\frac{1}{4}$ C. $\frac{1}{3}$ D. $\frac{1}{2}$
2	64.A point (x, y, z) moves parallel to xy plane. Which of the three variables x, y, z remain fixed?	A. z B. x C. y D. x and y
3	The harmonic mean between a and b is	
4	The period of $\cos(7x-5)$ is	A. $\frac{\pi}{7}$ B. $7\frac{\pi}{2}$ C. $\frac{\pi}{2}$ D. $2\frac{\pi}{7}$
5	For all points (x,y) on y-axis	A. x is positive B. x = 0 C. x is negative D. y = 0
6	Question Image	
7	Question Image	A. Singular B. Non-singular C. Adjoint D. None of above
8	The value of $\cos(\cos^{-1} \frac{1}{2})$ is	A. $\frac{1}{2}$ B. $\frac{\sqrt{3}}{2}$ C. $-\frac{1}{2}$ D. $\frac{1}{\sqrt{2}}$
9	The multiplicative inverse of (a,b) is	
10	Sum of n terms of a geometric series if $ r < 1$ is	
11	Question Image	
12	If for the matrix A, $A^5 = 1$, then $A^{-1} =$	A. A^2 B. A^3 C. A D. None of above
13	The set (Z, +) forms a group	A. Forms a group w.r.t. addition B. Non commutative group w.r.t. multiplication C. Forms a group w.r.t multiplication D. Doesn't form a group
14	Question Image	
15	if $a_1 = 3$, $d = 7$ and $a_n = 59$, then the number of terms in A.P is	A. 7 B. 9 C. 11 D. 13
16	Name the property used in $1000 \times 1 = 1000$	A. additive inverse B. multiplicative inverse C. additive identity D. multiplicative identity
17	$\sin 50^\circ - \sin 70^\circ + \sin 10^\circ$ is equal to	A. 1 B. 0 C. $\frac{1}{2}$ D. 2
18	A and B be two square matrices and if their inverse exist, the $(AB)^{-1} =$	A. $A^{-1}B^{-1}$ B. AB^{-1} C. $A^{-1}B$ D. $B^{-1}A^{-1}$

19	Every recurring decimal represents	A. A natural number B. A rational number C. An irrational number D. A whole number
20	The set of natural numbers is a subset of	A. {1, 2, 3, 100} B. The set of whole numbers C. {2, 4, 6, 8,} D. None of these