

ECAT Pre General Science Mathematics Online Test

Sr	Questions	Answers Choice
1	$f(x) = \sin x$ is:	A. an odd function B. an even function C. an implicit function D. an exponential function
2	If G is a G.M between a and b then a,G,b are in	A. A.P B. H.P C. G.P D. None of these
3	If $a^x = b^y = c^z$ and a, b, c are in G.P. then x, y, z are in	A. A.P. B. G.P. C. H.P. D. None of these
4	Sum of all the four forth roots of unity is	A. 1 B. -1 C. i D. 0
5	Question Image	D. none of these
6	The seventh term of an A.P whose first term is P and common difference is q. is	A. P-6q B. P+6q C. P-4q D. P-nq
7	Question Image	A. 15 B. 15 i C. -15 i D. -15
8	$(x^3 - 1/x)^{12}$	A. 295 B. 495 C. 395 D. 722
9	Digit in the unit place of the number $183! + 3^{183}$	A. 7 B. 6 C. 3 D. 0
10	i is equal	A. (1, 0) B. (0, 1) C. (1, 1) D. (0, 0)
11	Question Image	A. -x B. Infinite set C. {-4, 4} D. None of these
12	The number of ways of arranging the letter AAAAA BBB CCC D EE F in a row when no two C's are together is	
13	The symbol of irrational is	A. W B. N C. Q D. $\mathbb{Q}$
14	If the sum of even coefficients in the expansion of $(1+x)^n$ is 128 then	A. n=7 B. n=9 C. n=8 D. None
15	Question Image	
16	Question Image	A. One-to-one and onto B. One-to-one but not on to C. Onto but not one-to-one D. Neither one-to-one nor onto
17	For any integer k, $w^n =$ _____ when $n = 3k$	A. 1 B. 2 C. 0

		C. 0 D. -4
18	The number of real tangents that can be drawn to the ellipse $3x^2 + 5y^2 = 32$ passing thro. (3, 5) is	A. 0 B. 1 C. 2 D. Infinite
19	What is the period of $6 \sin x$?	A. π B. $-\pi$ C. $\pi/2$ D. 2π
20	An ellipse slides between two lines at right angles to one another. The locus of its centre is :	A. a parabola B. an ellipse C. a circle D. a hyperbola