

## ECAT (Pre-Eng) Mathematics Chapter 17 Functions and Limits

Sr	Questions	Answers Choice
1	Question Image	A. 0 B. 1 C. 8 D. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;<math>\infty</math>&lt;/i&gt;</span>
2	Question Image	A. 0 B. 1 C. $\frac{1}{2}$
3	Question Image	A. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span> B. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;<math>2\pi</math>&lt;/i&gt;</span> C. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;<math>\pi/2</math>&lt;/i&gt;</span> D. None of these
4	$f(x) = C$ is	A. identity function B. constant function C. linear function D. quadratic function
5	The range of $y=x^2 + 1$ is the set of non-negative real numbers except	A. $0 \leq y < 1$ B. $0 < y < 1$ C. $0 \leq y \leq 1$ D. $0 < y \leq 1$
6	$f(x) = \sin x + \cos^2 x$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
7	$p(x) = 2x^4 - 3x^3 + 2x - 1$ is polynomial of degree	A. 1 B. 2 C. 3 D. 4
8	If $f(x) = -x^3$ then $f(-2)$ is	A. -2 B. -4 C. -8 D. 8
9	The domain and range of a trigonometric function can be allocate by their	A. graph B. Continuity C. Discontinuity D. Periods
10	Question Image	A. $x = f(y)$ B. $y = f(x)$ C. $x = f(x)$ D. $y = f(y)$
11	Every relation, which can be represented by a linear equation in two variables, represents a	A. Relation B. Cartesian product C. Function D. Graph
12	The function $f(x) =  x $ is a/an _____ function	A. Even B. Odd C. Both even as well as odd D. Neither even nor odd
13	Question Image	A. $[0, 1[$ B. $[0, 1]$ C. $]0, 1[$ D. None of these

14	Question Image	A. 0 B. 1 C. 2
15	Question Image	A. 0 B. 1 D. none of these
16	In common logarithm the base is	A. 1 B. 0 C. 10 D. e
17	Which is not included in the domain of $\cos^{-1}x$	A. 0 B. 1 C. -1 D. 2
18	The set of points $\{(x,y) y = f(x), \forall x \in \}$ is called	A. Relation B. Graph of f C. Function D. All are correct
19	The value of x which is unchanged by the mapping in the function defined by $f : x \mapsto x^2 + 5x - 5$ for $x > 0$ is	A. 1 B. 5 C. -5 D. -1
20	A function from X to X is denoted as	B. $f : X \rightarrow Y$ D. $f : Y \rightarrow Y$