

ECAT Mathematics Chapter 17 Functions and Limits

Sr	Questions	Answers Choice
1	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
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $x = f(y)$ B. $y = f(x)$ C. $x = f(x)$ D. $y = f(y)$
3	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. 1 D. -1
4	The area of circle of unit radius =	A. 0 B. 1 C. 4 D. π
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 3/4 B. r C. v D. None of these
7	_____ invented a symbolic way to write the statement "y is a function of x" as $y = f(x)$	A. Leibniz B. Newton C. Euler D. None of these
8	$f(x) = x$ is	A. trigonometric function B. exponential function C. quadratic function D. identity function
9	If $f(x) = x^2 - x$ then $f(-2)$ is	A. 4 B. 6 C. 2 D. 0
10	$p(x) = 2x^4 - 3x^3 + 2x - 1$ is polynomial of degree	A. 1 B. 2 C. 3 D. 4
11	The range of the function $f : x \rightarrow y$ is defined by	A. $\{x y = f(x) \forall x \in X \wedge y \in y\}$ B. $\{(x,y) y = f(x) \forall x \in X\}$ C. $\{y y = f(x) \forall x \in X \wedge y \in y\}$ D. Y
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1/8 B. 1/2 C. 1/4 D. 1/6
13	If $f(x) = \cos x$ then $f(0)$ is	A. 0 B. 1 C. 1/2
14	If $f(x) = x^2$ then $f(2)$ is	A. -2 B. 2 C. 4 D. -4
15	The domain of $y = \cos^{-1} x$ is	A. $-\infty < x < \infty$ B. $-1 \leq x \leq 1$ C. $x \leq -1$ or $x \geq 1$ D. None of these

16	If the function $y=2x-3$, what is the preimage of 11?	A. 11 B. 7 C. 5 D. 2
17	if $f(x) = x^3 - 3x^2 + 5x - 1$, then $f(-\sqrt{2}) =$	A. $7+7\sqrt{2}$ B. $3+3\sqrt{2}$ C. $-7-7\sqrt{2}$ D. $-3-3\sqrt{2}$
18	Question Image <input type="text"/>	
19	Which is not included in the domain of $\cos^{-1}x$	A. 0 B. 1 C. -1 D. 2
20	If $f(x) = x + 1$ then $f(z^2-1)$ is	A. z^2 B. $z^2 + 2$ C. $z^2 - 2$ D. none of these