

ECAT Mathematics Chapter 17 Functions and Limits

Sr	Questions	Answers Choice
1	If $y=f(x)$ is a function then y is called	A. dependent variable B. independent variable C. constant D. none of these
2	The periods of the function $f(x) = x[x]$ is	A. 1 B. 2 C. Non periodic D. None of these
3	In the function $f: A \rightarrow B$, the elements of A are called	A. Images B. Pre-images C. ranges D. Parameters
4	Question Image	
5	Question Image	
6	The period $\sin^2 \theta$ is	A. π B. $\frac{\pi}{2}$ C. 2π D. $\frac{\pi}{4}$
7	Question Image	A. 0 B. 1 D. -1
8	Question Image	A. range of f B. domain of f C. both (a) and (b) D. none of these
9	Graph of the equation $x^2 + y^2 = 4$ is	A. A circle B. An ellipse C. A parabola D. A square
10	Question Image	
11	$x = \sec \theta, y = \tan \theta$ are the parametric equations of	A. Circle B. Hyperbola C. Ellipse D. parabola
12	Domain of $y = \sec x$ is	A. All real numbers except $\frac{\pi}{2} + n\pi$ B. \mathbb{R} C. All negative integers D. None of these
13	Question Image	
14	The domain of the function $\sqrt{x^2 - 4}$ is given by	A. \mathbb{R} B. $\mathbb{R} + 2$ C. $[\mathbb{R} - \{x < -2 \text{ or } x > 2\}]$ D. $\mathbb{R} - 4$
15	Question Image	A. One-one but not onto B. One-one and onto C. Onto but not one-one D. Neither one-one nor onto
16	The behavior of trigonometric function is called	A. Continuity B. Discontinuity C. Periodicity D. Smoothness
17	A rule that assigns to each element x in X a unique element y in Y is called a	A. domain B. range C. function D. none of these

19	Every relation, which can be represented by a linear equation in two variables, represents a	A. Relation B. Cartesian product C. Function D. Graph
20	The domain of $f(x) = \log x$ is	A. [0, ∞) B. (0, ∞) C. [0, ∞) D. [∞ , ∞)