

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

Sr	Questions	Answers Choice
1	$\sin h x =$ _____	
2	If $f(x) = x^2 - x$ then $f(-2)$ is	A. 4 B. 6 C. 2 D. 0
3	Question Image <input type="text"/>	
4	Question Image <input type="text"/>	A. -2 B. -1 C. 1 D. 2
5	Question Image <input type="text"/>	A. $\sin h x$ B. $\cos h x$ C. $\sec h x$ D. $\operatorname{cosec} h x$
6	For $f(x) = x^2 + px + 1$, if $f(3) = 3$ then $P =$	A. $3/7$ B. $-2/5$ C. $-7/5$ D. $-7/3$
7	The domain and range of a trigonometric function can be allocate by their	A. graph B. Continuity C. Discontinuity D. Periods
8	Question Image <input type="text"/>	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
9	Question Image <input type="text"/>	A. 0 B. 1 C. 2
10	Which of the following function form 1 to itself are bi-jective	A. $F(x) = x + 3$ B. $F(x) = x^{\sup>5\sup>}$ C. $F(x) = 3x + 2$ D. $F(x) = x^{\sup>2\sup>} + x$
11	Question Image <input type="text"/>	A. 0 B. 1 D. -1
12	$\tan h x =$ _____	
13	Question Image <input type="text"/>	
14	If $f(x) = x^2 - x$ then $f(0)$ is	A. 0 B. 1 C. 2 D. 3
15	Question Image <input type="text"/>	A. $R/[0,4]$ B. $R/(0,4)$ C. $(0,4)$ D. $[0,4]$
16	If a tangent line touches the function $y = f(x)$ in more than one point then $y = f(x)$ is	A. Periodic B. Surjective C. Bijective D. Injective
17	Question Image <input type="text"/>	A. image B. pre-image C. constant D. none of these
		A. 0 B. 1 C. 4

18 The area of circle of unit radius =

D. π

19 The range of the function $f : x \rightarrow y$ is defined by

- A. $\{x \mid y = f(x) \forall x \in X \wedge y \in Y\}$
- B. $\{(x, y) \mid y = f(x) \forall x \in X\}$
- C. $\{y \mid y = f(x) \forall x \in X \wedge y \in Y\}$
- D. Y

20 If a variable y depends on a variable x in such a way that each value of x determines exactly one value of y, then we say that

- A. x is function of y
- B. y is a function of x
- C. y is independent variable
- D. x is real valued function