

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

Sr	Questions	Answers Choice
1	A function from X to X is denoted as	B. $f : X \text{ to } Y$ D. $f : Y \text{ to } Y$
2	Question Image	A. 0 B. 1 D. -1
3	Question Image	A. 0 B. 1 D. -1
4	Question Image	
5	If $f(a) = b^2$ and $g(c) = d$ where $c = b^2$ then $(g \circ f)(a)$ is	A. α B. c C. b D. d
6	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(0)$ is	A. 0 B. 1 C. -1 D. none of these
7	Domain of $\cosh x$ is	A. \mathbb{R} B. $\mathbb{R} - \{0\}$ C. $[1, \infty)$ D. $[0, \infty)$
8	If $f(x) = -x^3$ then $f(-2)$ is	A. -2 B. -4 C. -8 D. 8
9	In common logarithm the base is	A. 1 B. 0 C. 10 D. e
10	Question Image	
11	Question Image	A. $\sinh x$ B. $\cosh x$ C. $\tanh x$ D. $\coth x$
12	Every relation, which can be represented by a linear equation in two variables, represents a	A. Relation B. Cartesian product C. Function D. Graph
13	If $f(x)$ is defined and continuous then $f(x)$ is always	A. Rational function B. Trigonometric function C. Logarithmic function D. All are correct
14	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(2)$ is	A. 7 B. -16 C. 16 D. -9
15	if the value of the sphere, $v = \frac{4}{3}\pi r^3$ then the which of the following statement is true?	A. r is the function of v B. v is the function of r C. π is independent variable D. None of these
16	Question Image	A. π B. 2π C. π

center; >π/2</i>

D. None of these


17 The range of inequality $x + 2 > 4$ is

A. (-1, 2)

B. (-2, 2)

C. (1, <i></i>)

D. None

18 

A. quadratic function

B. constant function

C. linear function

D. exponential function

19 $f(x) = 3x^2 + 1$ is:

A. an even function

B. an odd function

C. an even and implicit function

D. neither even nor a odd

20 For $f(x) = x^2$, what is the value of $f(a) + f(-a)$ in terms of a ?

A. $3a^2$

B. $2a^2$

C. $2a$

D. $-7a$