

ECAT Mathematics Chapter 17 Functions and Limits

Sr	Questions	Answers Choice
1	Question Image	
2	A function of the form $p(x)/Q(x)$ is called:	A. Rational function B. Logarithmic function C. Exponential function D. Hyperbolic function
3	Question Image	A. 2 C. -2 D. none of these
4	In common logarithm the base is	A. 1 B. 0 C. 10 D. e
5	If y is an image of x under the function f , then we write	A. $y = f(x)$ B. $x = f(y)$ C. $y = x$ D. none of these
6	The function $f : x \rightarrow y$ defined as $f(x) = a \forall x \in X, a \in y$ is called	A. Constant function B. Polynomial function C. Identity function D. Linear function
7	Question Image	A. 0 B. 1 D. -1
8	The set of points $\{(x,y) y = f(x), \forall x \in \mathbb{R}\}$ is called	A. Relation B. Graph of f C. Function D. All are correct
9	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(2)$ is	A. 7 B. -16 C. 16 D. -9
10	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(0)$ is	A. 0 B. 1 C. -1 D. none of these
11	Question Image	
12	If $f(a) = b$ and $g(c) = d$ where $c = b$ then $(gof)(a)$ is	A. a B. c C. b D. d
13	A function from X to Y is written as	B. $f : X \rightarrow Y$ D. $f : Y \rightarrow X$
14	Question Image	A. range of f B. domain of f C. both (a) and (b) D. none of these
15	Question Image	
16	If $f(x) = 2x + 1$ then $f \circ f(x) = \underline{\hspace{2cm}}$;	A. $4x + 3$ B. $2x + 3$ C. $4x + 1$ D. None of these
17	$f(x) = ax + b$ will be an identity function if	A. $a = 1, b = 1$ B. $a = 1, b = 0$
18	Question Image	A. images B. pre-images C. constants D. none of these

19 Which of the following function form 1 to itself are bi-jective

A. $F(x) = x + 3$
B. $F(x) = x^5$
C. $F(x) = 3x + 2$
D. $F(x) = x^2 + x$

20 If x is an image of y under the function f . This can be written as

A. $y = f(x)$
B. $f(x) = 0$
C. $x = f(y)$
D. $f(y) = 0$
