

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

Sr	Questions	Answers Choice
1	Question Image	A. sin h x B. cos h x C. tan h x D. cot h x
2	Question Image	A. 2 B. 6
3	The domain of the function $x/x^2$ -4 is given by	A. R B. R + 2 C. [R - ( <u>+</u> 2) D. R-4
4	A function F(x) is called even if	A. $F(x) = F(-x)$ B. $F(x) = F(-x)$ C. $F(x) = -F(x)$ D. $2F(x) = 0$
5	Question Image	
6	Question Image	A. Does not exist because f is unbounded B. Is not attained even though f is bounded C. Is equal to 1 D. Is equal to -1
7	Question Image	A. 0 B. 1 D1
8	A rule that assigns to each elements x in X a unique element y in Y is called a	A. domain B. range C. function D. none of these
9	$f(x) = x^3 is:$	A. an odd function B. an even function C. an implicit function D. a quadratic funtion
10	Which is an explicit function	A. y = x <sup>2</sup> + 2x - 1 B. x <sup>2</sup> + xy + y <sup>2</sup> = 2 C. x <sup>2</sup> + y <sup>2</sup> = xy + 2 D. All are
11	$\cos h^2 x + \sin h^2 x$	<ul><li>A. an even function</li><li>B. an odd function</li><li>C. an even and implicit function</li><li>D. neither even nor a odd</li></ul>
12	The period sin $^2 \!  heta$ is	A. <  style="text-align: center;"> $\pi$ <sup> B. &lt;  style="text-align: center;"&gt;<math>\pi</math> C. 2&lt;  style="text-align: center;"&gt;<math>\pi</math> D. &lt;  style="text-align: center;"&gt;<math>\pi</math> center;"&gt;<math>\pi</math></sup>
13	Express the perimeter P of square as a function of its area A?	A. $P = 4\sqrt{A}$ B. $P = \sqrt{A}$ C. $P = 2A$ D. $P = \pi\sqrt{A}$
14	f(x) = x3-x/x2+1 is:	<ul><li>A. an even function</li><li>B. an odd function</li><li>C. an even and implicit function</li><li>D. neither even nor a odd</li></ul>
15	If $f(x) = x^2 - x$ then $f(-2)$ is	A. 4 B. 6 C. 2 D. 0

16	Question Image	A. 2 B. 1 C. 5 D. 0
17	Domain of y = scs x is	<ul> <li>A. All real numbers except π/2 + n*τ</li> <li>B. R</li> <li>C. All negative integers</li> <li>D. None of these</li> </ul>
18	if the value of the sphere, v =4/3 $\pi$ r <sup>2</sup> , then the which of the following statement is true?	A. r is the function of v B. v is the function of $\pi$ C. $\pi$ is independent variable D. None of these
19	If f (x) = 2x+1 then fof (x) =;	A. 4x+3 B. 2x +3 C. 4x +1 D. None of these
20	If $f(x) = x^2 - x$ then $f(2)$ is	A. 4 B. 6 C. 2 D. 0