

ECAT Mathematics Chapter 17 Functions and Limits

| Sr | Questions | Answers Choice |
|----|--|--|
| 1 | Question Image | A. $\sinh x$ B. $\cosh x$ C. $\operatorname{sech} x$ D. $\operatorname{cosech} x$ |
| 2 | Question Image | A. 2 C. -2 D. none of these |
| 3 | Question Image | A. image B. pre-image C. constant D. none of these |
| 4 | Question Image | |
| 5 | Question Image | A. 2 B. 6 |
| 6 | If $y=f(x)$ is a function then x is called | A. dependent variable B. independent variable C. constant D. none of these |
| 7 | The area of circle of unit radius = | A. 0 B. 1 C. 4 D. π |
| 8 | The range of function $f(x)=-x^2+2x-1$ is | A. R B. $(-\infty, 0]$ C. $(-\infty, 1]$ D. $[0, \infty)$ |
| 9 | Question Image | |
| 10 | Question Image | |
| 11 | if the value of the sphere, $v = \frac{4}{3}\pi r^2$, 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 |
| 12 | A function from X to Y is written as | B. $f : X \text{ to } Y$ D. $f : Y \text{ to } Y$ |
| 13 | $f(x) = \sin x$ is: | A. an odd function B. an even function C. an implicit function D. an exponential function |
| 14 | Question Image | |
| 15 | If $f(x) = \tan x$ then $f(0)$ is | A. 0 B. 1 C. $\frac{1}{2}$ |
| 16 | The function discontinuous at $x = 0$ is (I) $\tan x$ (II) $\cot x$ (III) $\sec x$ (iv) $\operatorname{cosec} x$ | A. I & III B. I & IV C. II & IV D. II & III |
| 17 | The range of inequality $x + 2 > 4$ is | A. (-1, 2) B. (-2, 2) C. (1, ∞) D. $(-\infty, 2)$ |

D. None

18 Question Image

19 If $f(x) = \cos x$ then $f(0)$ is

- A. 0
- B. 1
- C. 1/2

20 Question Image