

## ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The converse and Inverse are	A. Equivalent to each other B. Opposite to each other C. Equal to each other D. Not Equal to each other
2	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
3	$f(x) = C$ is	A. identity function B. constant function C. linear function D. quadratic function
4	The derivative of $1/x^m$ is:	A. $x^{m+1}/m$ B. $m(x)^{m-1}$ C. $(m-1)x^{-m}$ D. $m/x^{m+1}$
5	The set of all positive even integers is	A. Not a group B. A group w.r.t subtraction C. A group w.r.t division D. A group w.r.t multiplication
6	Which of the following integrals can be evaluated	
7	The range of the principal sine function is	
8	The vector $i = [1,0]$ is called unit vector along:	A. x-axis B. y - axis C. z - axis D. Both a and y-axis
9	The set $\{a,b\}$ is	A. Infinite set B. Singleton set C. Two points set D. Empty set
10	The multiplicative inverse of -1 in the set $\{-1, 1\}$ is	A. 1 B. -1 C. 0 D. Does not exist
11	If $f(x) = \tan x$ then $f(0)$ is	A. 0 B. 1 C. 1/2
12	A person standing on the bank of a river observes that the angle subtended by a tree of the opposite bank is $60^\circ$ , when he retreats 40 m from the bank, he finds the angle to be $30^\circ$ . The height of the tree and the breadth of the river are	
13	Range of $\cos\theta$ is	
14	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. conclusion B. consequent C. hypothesis D. conditional
15	$1, 1/3, 1/5, 1/7, 1/9, \dots$ is a	A. geometric sequence B. finite sequence C. infinite sequence D. arithmetic series
16	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
17	The angle of depression of the point at a distance 70 meters from the foot of the tower from the top of the tower is $45^\circ$ . The height of the tower is	A. 37m B. 97m C. 101m D. 70m
18	Three points whose position vector $a, b, c$ are collinear	A. $axb + bxc + cxa = 0$ B. $a, b + b, c + c, a = 0$ C. $a,  a \times c  = 0$ D. $a+b+c = 0$

19

Question Image

20

$\sqrt{2}$  is a number

- A. Rational
- B. Irrational
- C. Even
- D. Odd