

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	If the number of elements in set A is n, and in set B is m, then the number of elements in $A \times B$ will	A. n^m B. m^n C. $m \times n$ D. $m + n$
2	Arithmetic mean between a and b is	
3	AB is a vertical pole and C is its middle point. The end A is on the level ground and P is any point on the level ground other than A. the portion CB subtends an angle β at P. If $AP : AB = 2 : 1$ then $\beta =$	
4	The roots of the equation $4x^2 - 3.2x + 32 = 0$ would include	A. 1 and 3 B. 1 and 4 C. 1 and 2 D. 2 and 3
5	What is the value of $\cos(\cos^{-1} 2)$?	A. $\sqrt{2}$ B. $1/2$ C. undefined D. 0
6	Which of the following is surjective	
7	If $y = 3x + 2\cos x$, then $dy/dx =$	A. $3 - 2 \sin x$ B. $3 - \sin x$ C. $3x^2 - 2 \sin x$ D. $3(1 - 4 \sin x)$
8	What is range of the function $g(x) = x - 3 $?	A. $[0, \infty)$ B. $(0, \infty)$ C. $(-\infty, 3]$ D. $[0, \infty)$
9	The positive real number which is the measure of the length of a vector is called the	A. Unit vector B. Modulus C. Inverse D. None of these
10	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. quadratic function B. constant function C. linear function D. exponential function
11	The two parts into which 57 should be divided so that their product is 782 are	A. 43, 14 B. 34, 23 C. 33, 24 D. 44, 13
12	The set of natural numbers is a subset of	A. $\{1, 2, 3, \dots, 100\}$ B. The set of whole numbers C. $\{2, 4, 6, 8, \dots\}$ D. None of these
13	If $f(x) = x^2$ then $f(-2)$ is	A. -2 B. 2 C. 4 D. -4
14	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. $a \sin(ax + b) + c$ B. $-a \sin(ax + b) + c$
15	The set of real numbers is a subset of	A. The set of natural numbers B. The set of rational numbers C. The set of integers D. The set of complex numbers
16	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. Associative property of addition B. Commutative property of addition C. Distributive property D. Additive identity
17	1.4142135... is _____	A. A natural number B. A rational number C. A prime number

- C. A prime number
- D. An irrational number

18 $x = \sec\theta, y = \tan\theta$ are the parametric equations of

- A. Circle
- B. Hyperbola
- C. Ellipse
- D. parabola

19 Question Image

A.

20 For graphing a linear inequality, solid line is drawn if the inequality involves the symbols:

- A. $>$ or $<$;
- B. \geq or \leq ;
- C. $=$ or \neq ;
- D. $=$ or $>$;