

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	If $Z = (1,2)$, then $Z^{-1} = ?$	A. (0.2, 0.4) B. (-0.2, 0.4) C. (0.2, -0.4) D. (-0.2, -0.4)
2	A complex number " $1 + i$ " can also be expressed as"	A. $2(\cos 60^\circ + i \sin 30^\circ)$ B. $\cos 60^\circ + i \sin 60^\circ$ C. $(\cos 60^\circ + i \sin 60^\circ)$ D. $\cos 30^\circ + i \sin 30^\circ$
3	If sides of $\triangle ABC$ are 16, 20, and 33, then the value of the greatest angle is	A. 150° B. 132° C. 101° D. 160°
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	The number of permutations of n objects of which there are n_1 like of one kind, n_2 like of the second kind and n_3 like objects of third kind are	
6	The period of the trigonometric function $y = \sin x \cos x$ is	A. 2π B. π C. 4π D. $\pi / 2$
7	Rank of matrix $\begin{bmatrix} 1 & 3 & 5 & 0 \end{bmatrix}$ is	A. 1 B. 3 C. 2 D. 4
8	Two quadratic equation in which xy term is missing and the coefficients of x^2 and y^2 are equal, give a linear equation by _____	A. Addition B. Subtraction C. Multiplication D. Division
9	$f(x) = 1$ is	A. identity function B. constant function C. linear function D. quadratic function
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $x^2 + 2$ B. $3x + 2$ C. $3x^2 + 5$ D. $3x^2 + 2$
11	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
12	a _____ quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	B. $6x + 2 + c$ C. $6x + x^2 + c$ D. $6x^3 + x^2 + x$
14	The physical quantity which can be specified by a number along with unit is called a	A. scalar B. vector C. constant D. none of these
15	The points $(a, 0)$, $(0, b)$ and $(3a, -2b)$ are:	A. Collinear B. Vertices of isosceles triangle C. corner of a right-angled triangle D. None of these
16	The value of $\cos(\cos^{-1} 1/2)$ is	A. $1/2$ B. $\sqrt{3}/2$ C. $-1/2$ D. $\sqrt{1/2}$

D. $1/\sqrt{2}$

17 If $c = 2i+j+k$ and $d = -1 + 4j + 2k$, then $|c-d| =$

- A. $\sqrt{7}$
- B. $\sqrt{41}$
- C. $\sqrt{19}$
- D. $\sqrt{2+7}$

18 The multiplicative inverse of $1 - 2i$ is

- A. 4
- B. 5
- C. 2
- D. 3

19 The positive integer just greater than $(1+0.0001)^{10000}$ is

20 