

ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	
3	Question Image	
4	Question Image	
5	Question Image	
6	Question Image	D. None of these
7	$i^{(4n+2)} = \text{-----}$	A. 1 B. i C. -1 D. -i
8	i is equal	A. (1, 0) B. (0, 1) C. (1, 1) D. (0, 0)
9	If $z_1 = (a,b)$, $z_2 = (c,d)$, then $z_1 z_2 = \text{-----}$	A. (ac,bd) B. (ac+bd, ad-bc) C. (ac-bd, ad+bc) D. (ac-bd, ad-bc)
10	Question Image	
11	If $z = (x,y)$, then $\bar{z} =$	A. (-x,y) B. (x,-y) C. (-x, -y) D. None of these
12	If $z=(x,y)$ then z has no multiplicative inverse when	A. $x \neq 0, y = 0$ B. $x = 0, y = 0$ C. $x = 0, y \neq 0$ D. None of these
13	$\forall x,y \in \mathbb{R}$ and $x > 0, y > 0$, if $x > y$	D. None of these
14	$\forall a,b,c \in \mathbb{R}, a > b \wedge b > c \Rightarrow a > c$ is	A. Trichotomy property B. Transitive property C. Symmetric property D. Additive property
15	For any real numbers $x,y, xy=0 \Rightarrow$	A. $x \neq 0 \wedge y \neq 0$ B. $x = 0 \wedge y = 0$ C. $x = 0$ D. $y = 0$
16	If $z_1 = 1 + 2i, z_2 = 3 + 4i$ then	A. $z_1 z_2 >$ B. $z_1 z_2 =$ C. $z_1 z_2 <$ D. None of these
17	$\forall z \in \mathbb{C}$, multiplucative is	A. (1,1) B. (1,0) C. (0,1) D. None of these
18	A subset of set of complex number whose elements are of the form $(a,0)$ is called	A. Real number B. Complex number C. Rational number D. Irrational number
19	The square roots of negative numbers is called	A. Real no B. Complex no C. Positive no D. Negative no

20	The set $\{0, -1\}$ hold closure property under	A. Addition B. Both a & b C. Multiplication D. None of these
21	If in a set of real no a is additive identity then	A. $a+a = 2a$ B. $a+a = 1$ C. $a+a = 0$ D. None of these
22	If in a set of real no a is multiplicative identity then	A. $a,a = a^{>2}$ B. $a,a = 1$ C. $a,a = 0$ D. None of these
23	A non-terminating non_recurring decimal represents an	A. Irrational no B. Both a & b C. Rational no D. None of these
24	2.333....is a	A. Irrational no B. Complex no C. Rational no D. None of these
25	$\forall x,y \in \mathbb{R}$ and $x < 0, y < 0$, which one is true	A. $xy < 0$ B. $xy = 0$ C. $xy > 0$ D. None of these
26	$\forall x,y,z \in \mathbb{R}$ and $z > 0$, then	A. $x > y \Rightarrow xz > yz$ B. $x < y \Rightarrow xz < yz$ C. $x < y \Rightarrow xz > yz$ D. None of these
27	$\forall a,b,c \in \mathbb{R}$ and $c > 0$, then	A. $a > b \Rightarrow ac < bc$ B. $a > b \Rightarrow ac > bc$ C. $a < b \Rightarrow ac > bc$ D. None of these
28	$\forall x, y \in \mathbb{R}$, either $x = y$ or $x > y$ or $x < y$ is	A. Transitive property B. Reflexive property C. Trichotomy property D. None of these
29	$\sqrt{x} = \text{_____}$ if is a prime number	A. Rational no B. Natural no C. Irrational no D. Complex no
30	A prime number can be a factor of a square only if it occurs in the square at least	A. Once B. Thirce C. Twice D. None of these