

ECAT Mathematics Chapter 1 Number System Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	D. None of these
3	$i^{(4n+2)} =$ -----	A. 1 B. i C. -1 D. -i
4	i is equal	A. (1, 0) B. (0, 1) C. (1, 1) D. (0, 0)
5	If $z_1 = (a,b)$, $z_2 = (c,d)$, then $z_1 z_2 =$ -----	A. (ac,bd) B. (ac+bd, ad-bc) C. (ac-bd, ad+bc) D. (ac-bd, ad-bc)
6	Question Image	
7	If $z = (x,y)$, then $\bar{z} =$	A. (-x,y) B. (x,-y) C. (-x, -y) D. None of these
8	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
9	$\forall x,y \in \mathbb{R}$ and $x > 0, y > 0$, if $x > y$	D. None of these
10	$\forall a,b,c \in \mathbb{R}, a > b \wedge b > c \Rightarrow a > c$ is	A. Trichotomy property B. Transitive property C. Symmetric property D. Additive property
11	For any real numbers $x,y, xy=0 \Rightarrow$	A. $x \neq 0 \wedge y \neq 0$ B. $x = 0 \vee y = 0$ C. $x = 0$ D. $y = 0$
12	If $z_1 = 1 + 2i, z_2 = 3 + 4i$ then	A. $z_1 > z_2$ B. $z_1 \neq z_2$ C. $z_1 < z_2$ D. None of these
13	$\forall z \in \mathbb{C}$, multiplucative is	A. (1,1) B. (1,0) C. (0,1) D. None of these
14	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
15	The square roots of negative numbers is called	A. Real no B. Complex no C. Positive no D. Negative no
16	The set $\{0,-1\}$ hold closure property under	A. Addition B. Both a & c C. Multiplication D. None of these
17	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. $a+a = a$

		D. None of these
18	If in a set of real no a is multiplicative identity then	A. $a \cdot a = a^{>2}$ B. $a \cdot a = 1$ C. $a \cdot a = 0$ D. None of these
19	A non-terminating non_recurring decimal represents an	A. Irrational no B. Both a & c C. Rational no D. None of these
20	2.333....is a	A. Irrational no B. Complex no C. Rational no D. None of these
21	$\forall x, y \in \mathbb{R}$ and $x < 0, y < 0$, which one is true	A. $xy < 0$ B. $xy = 0$ C. $xy > 0$ D. None of these
22	$\forall x, y, z \in \mathbb{R}$ and $z \neq 0$, then	A. $x > y \Rightarrow xz > yz$ B. $x < y \Rightarrow xz < yz$ C. $x < y \Rightarrow xz > yz$ D. None of these
23	$\forall a, b, c \in \mathbb{R}$ 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
24	$\forall x, y \in \mathbb{R}$, either $x = y$ or $x > y$ or $x < y$ is	A. Transitive property B. Reflexive property C. Trichotomy property D. None of these
25	$\sqrt{x} = \text{_____}$ if x is a prime number	A. Rational no B. Natural no C. Irrational no D. Complex no
26	A prime number can be a factor of a square only if it occurs in the square at least	A. Once B. Thrice C. Twice D. None of these
27	Any recurring decimal represents a	A. Irrational no B. Integer C. Rational no D. None of these
28	The order axioms are satisfied by set of	A. \mathbb{C} B. \mathbb{C} and \mathbb{R} C. \mathbb{R} D. None of these
29	If a is any real number and $a = a$ is called	A. symmetric property B. Trichotomy Properties C. Transitive Property D. Reflexive Properties