

ECAT Computer Science Entry Test

Sr	Questions	Answers Choice
1	$i^9 =$	A. $i^{2 \times 2 + 2}$ B. -1 C. 1 D. i
2	$i^2 =$	A. 1 B. 2 C. -1 D. 0
3	$(a,0) \times (c,0) =$	A. (0,ac) B. (ac,0) C. (0,0) D. (a,c)
4	$(a,b) + (-a,-b) =$	A. (0,0) B. (a,b) C. (-a,-b) D. (1,1)
5	The conjugate of $\sqrt{5} i$ is	A. $\sqrt{5}$ B. $-\sqrt{5} i$ C. i D. 5i
6	$(a + bi) - c (c + di) =$	A. $(a + b) = (c + d)$ B. $(a + c) + i(b + d)$ C. $(a - c) + (c - d)i$ D. $(a - c) + (b - d)i$
7	$i^3 =$	A. -1 B. i C. -i D. 1
8	In $(x + iy)$ y is called as	A. Imaginary part B. Complex number C. Real part D. None of above
9	In $(x + iy)$ x is the known as	A. Imaginary part of complex number B. Real part of complex number C. Complex number D. None of above
10	$i =$	A. $\sqrt{1}$ B. $\sqrt{2}$ C. $\sqrt{-2}$ D. $\sqrt{-1}$
11	The property used in $-3 < -2 \Rightarrow 0 < 1$	A. Commutative property B. Additive property of inequality C. Additive inverse D. Additive identity
12	$(\sqrt{3} + \sqrt{5}) + \sqrt{7} = \sqrt{3} + (\sqrt{5} + \sqrt{7})$ property used in above is	A. Commutative property of addition B. Closure property of addition C. Additive inverse D. Associative property w.r.t to addition
13	$(a-1)^{-1} =$	A. a-1 B. a C. -a D. None of above
14	$a > b \Rightarrow a + c > b + c$ is known as	A. Trichotomy property B. Additive property of inequality C. Transitive property D. Multiplicative property
15	$a > b, b > c \Rightarrow a > c$ is a	A. Multiplicative property B. Additive property C. Trichotomy property D. Transitive property

		D. Transitive property or inequality
16	If $a > b$ or $a < b$ then $a = b$ is a	A. Additive property B. Transitive property C. Trichotomy property of inequality
17	$\forall a, b, c \in \mathbb{R} \quad ac = bc \Rightarrow a = b, c \neq 0$ is a	A. Symmetric property B. Cancellation property w.r.t multiplication C. Reflexive property D. Transitive property
18	$\forall a, b, c \in \mathbb{R}, a + c = b + c \Rightarrow a = b$	A. Reflexive property B. Symmetric property C. Cancellations property w.r.t. addition D. Transitive property
19	$\forall a, b \in \mathbb{R}, ab = ba$ is a	A. Commutative law of multiplication B. Closure law of multiplication C. Associative law of multiplication D. Multiplicative identity
20	$a \cdot a^{-1} = a^{-1} \cdot a = 1$ is a	A. Commutative law of multiplication B. Multiplicative identity C. Associative law of multiplication D. Multiplicative inverse
21	Associative law of multiplication	A. $ab - ba$ B. $a(bc) = (ab)c$ C. $a(b + c) = ab + ac$ D. $(a + b)c = ac + bc$
22	$\forall a \in \mathbb{R} \exists 0 \in \mathbb{R}$ such that $a + 0 = 0 + a = a$ is property of	A. Commutative law of addition B. Associative law of addition C. Additive identity D. Additive inverse
23	If $\forall a, b \in \mathbb{R}$, then $a + b \in \mathbb{R}$ is a property	A. Closure law of addition B. Associative law of addition C. Additive inverse D. Additive identity
24	202.04 is an example of	A. Recurring decimals B. Non-recurring decimals C. Terminating decimals D. None of these
25	$\sqrt{2}$ is a number	A. Rational B. Irrational C. Even D. Odd
26	$\sqrt{25}$ is a number	A. Rational B. Irrational C. Natural D. Odd
27	The symbol of irrational is	A. W B. N C. Q D. \mathbb{Q}^c
28	$\mathbb{Q} \cup \mathbb{Q}^c =$	A. N B. R C. W D. Z
29	The set $\{1, 2, 3, 4, \dots\}$ is called	A. Set of natural numbers B. Set of whole numbers C. Set of rational number D. Set of irrational numbers
30	Geometrically the modulus of a complex number represents its distance from the	A. Point (1,0) B. Point (0,1) C. Point (1,1) D. Point (0,0)