

## Mathematics ECAT Pre Engineering Chapter 1 Number System Online Test

Sr	Questions	Answers Choice
1	$(a-1)-1 =$	A. $a-1$ B. $a$ C. $-a$ D. None of above
2	$a > b \Rightarrow a + c > b + c$ is known as	A. Trichotomy property B. Additive property of inequality C. Transitive property D. Multiplicative property
3	$a > b, b > c \Rightarrow a > c$ is a	A. Multiplicative property B. Additive property C. Trichotomy property D. Transitive property of inequality
4	If $a > b$ or $a < b$ than $a = b$ is a	A. Additive property B. Transitive property C. Trichotomy property of inequality
5	$\forall a, b, c \in \mathbb{R} \quad ac = bc \Rightarrow a = b, c \neq 0$ is a	A. Symmetric property B. Cancellation property w.r.t multiplication C. Reflexive property D. Transitive property
6	$\forall a, b, c \in \mathbb{R}, a + c = b + c \Rightarrow a = b$	A. Reflexive property B. Symmetric property C. Cancellations property w.r.t. addition D. Transitive property
7	$\forall a, b \in \mathbb{R}, ab = ba$ is a	A. Commutative law of multiplication B. Closure law of multiplication C. Associative law of multiplication D. Multiplicative identity
8	$a \cdot a^{-1} = a^{-1} \cdot a = 1$ is a	A. Commutative law of multiplication B. Multiplicative identity C. Associative law of multiplication D. Multiplicative inverse
9	Associative law of multiplication	A. $ab - ba$ B. $a(bc) = (ab)c$ C. $a(b + c) = ab + ac$ D. $(a + b)c = ac + bc$
10	$\forall a \in \mathbb{R} \exists 0 \in \mathbb{R}$ 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
11	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
12	202.04 is an example of	A. Recurring decimals B. Non-recurring decimals C. Terminating decimals D. None of these
13	$\sqrt{2}$ is a number	A. Rational B. Irrational C. Even D. Odd
14	$\sqrt{25}$ is a number	A. Rational B. Irrational C. Natural D. Odd
15	The symbol of irrational is	A. W B. N C. Q D. I

16	QUQ, =	A. N B. R C. W D. Z
17	The set {1,2,3,4.....} is called	A. Set of natural numbers B. Set of whole numbers C. Set of rational number D. Set of irrational numbers
18	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)
19	The square root of $2i - 20i$ is	A. $\pm(5 - 2i)$ B. $\pm(5 + 2i)$ C. $(5 - 2i)$ D. None of these
20	The value of $i^{4n+1}$	A. 1 B. -1 C. i D. $i^{2n+2}$
21	What is the conjugate of $-7 - 2i$ ?	A. $-7 + 2i$ B. $7 + 2i$ C. $7 - 2i$ D. $\sqrt{53}$
22	The equation $ x+4  = x$ has solution	A. $x = -2$ B. $x = 2$ C. $x = -4$ D. $x = 4$
23	If $z_1 = \sqrt{-36}$ , $z_2 = \sqrt{-25}$ , $z_3 = \sqrt{-16}$ then	A. 15 B. $15i$ C. $-15i$ D. -15
24	if $Z_1 = 1+i$ , $Z_2 = 2+3i$ , then $ Z_2 - Z_1  =$	A. $\sqrt{3} i$ B. $\sqrt{7}$ C. $-2-i$ D. $\sqrt{5}$
25	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)
26	The value of x and y when $(x + iy)^2 = 5 - 4i$	A. $x = 2$ , $y = -1$ B. $x = -2$ , $y = 1$ C. $x = 2$ , $y = -i$ D. $x = 2$ , $y = 2$
27	Every prime number is also	A. Rational number B. Even number C. Irrational number D. Multiple of two numbers
28	$\sqrt{23}$ is	A. A rational number B. A irrational number C. An even integer D. A factor of 36
29	6 is	A. A prime integar B. An irrational number C. A rational number D. An odd integer
30	0 (zero) is	A. An irrational number B. A rational number C. A negative integer D. A positive number