

## ECAT Mathematics Chapter 1 Number System

Sr	Questions	Answers Choice
1	$i^{(4n+2)} = \dots\dots\dots$	A. 1 B. i C. -1 D. -i
2	If $a > b$ or $a < b$ than $a = b$ is a	A. Additive property B. Transitive property C. Trichotomy property of inequality
3	$\sqrt{-1b} = ?$	A. b i B. -i b C. b2 D. i $\sqrt{b}$
4	$2/9, 5/7 \in \mathbb{R}, (2 \mid 9)(5 \mid 7) = 10/63 \in \mathbb{R}$ this property is called	A. Associative property B. Identity property C. Commutative property D. Closure property w.r.t multiplication
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. A positive integer B. A negative integer C. A natural number D. An irrational number
6	$\forall a, b, c \in \mathbb{R}, a > b \wedge b > c \Rightarrow a > c$ is	A. Trichotomy property B. Transitive property C. Symmetric property D. Additive property
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Commutative law of addition B. Associative law of addition C. Additive identity D. Additive inverse
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Principle of equality of fractions B. Rule for product of fraction C. Rule for quotient of fraction D. Golden rule of fractions
9	1 is not	A. Real number B. Natural number C. Prime Number D. Whole Number
10	The multiplicative inverse of 0 is	A. 1 B. -1 C. 0 D. Does not exist
11	In $\mathbb{R}$ , the multiplicative identity is	A. 0 B. 1 C. -1 D. None
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Closure law of addition B. Closure law of multiplication C. Commutative law of addition D. Commutative law of multiplication
14	The property used in $-3 < -2 \Rightarrow 0 < 1$	A. Commutative property B. Additive property of inequality C. Additive inverse D. Additive identity
15	Multiplicative inverse of 0 is	A. 0 B. 1 C. $\pm 1$ D. Does not exist
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Closure law of addition B. Associative law of addition C. Additive inverse

17 Question Image

18 Question Image

19 If  $z_1 = 2 + 6i$  and  $z_2 = 3 + 7i$ , then which expression defines the product of  $z_1$  and  $z_2$ ?

- A.  $36 + (-32)i$
- B.  $-36 + 32i$
- C.  $6 + (-11)i$
- D.  $0, +(-12)i$

20  $\forall x, y \in \mathbb{R}$  and  $x < 0, y < 0$ , which one is true

- A.  $xy < 0$
- B.  $xy = 0$
- C.  $xy > 0$
- D. None of these