

ECAT Pre Engineering Entry Test

Sr	Questions	Answers Choice
1	$\{0\}$ is a	A. Empty set B. Singleton set C. Zero set D. Null Set
2	Every set is an improper subset of	A. Empty set B. Equivalent set C. Itself D. Singleton set
3	Empty set is	A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers
4	if $A = \{x/x \in \mathbb{Q} \wedge 0 < x < 1\}$, the A is	A. Infinite set B. Finite set C. Set of rational numbers D. Set of real numbers
5	If there is one-one correspondence between A and B, then we write.	A. $A = B$ B. $A \subseteq B$ C. $A \supseteq B$ D. $A \sim B$
6	$P \notin A$ means	A. $\langle i \rangle P \langle /i \rangle$ is subset of A B. $\langle i \rangle P \langle /i \rangle$ is an element of A C. $\langle i \rangle P$ does not belongs to A D. A does not element of $\langle i \rangle P \langle /i \rangle$
7	The set of months in a year beginning with S.	A. {September, October, November} B. Singleton set C. Null set D. Empty set
8	$A = B$ iff	A. All elements of A also the elements of B B. A and B should be singleton C. A and B have the same number of elements D. If both have the same element
9	If $P = \{x/x = p/q \text{ where } p, q \in \mathbb{Z} \text{ and } q \neq 0\}$, then P is the set of	A. Irrational numbers B. Even numbers C. Rational numbers D. Whole numbers
10	If $S = \{3, 6, 9, 12, \dots\}$, then	A. S = Four multiples of 3 B. S = Set of even numbers C. S = Set of prime numbers D. S = All multiples of 3
11	Which of the following is the definition of singleton	A. The objects in a set B. A set having no element C. A set having no subset D. None of these
12	If $T = \{2, 4, 6, 8, 10, 12\}$, then	A. T = (First six natural numbers) B. T = (First six odd numbers) C. T = (First six real numbers) D. T = (First six even numbers)
13	Which of the following statement is true?	A. A set is a collection of non-empty object B. A set is a collection of only numbers C. a set is any collection of things D. a set is well-defined collection of objects
14	24 can be written as a product of	A. Odd factors B. Even factors C. Whole factors D. Prime factors

15	14 is not a	A. Prime number B. Whole number C. Even number D. Real number
16	Any whole number can be written as a product of factors which are	A. Odd numbers B. Prime number C. Rational number D. Even number
17	If P is a whole number greater than 1, which has only P and 1 as factors. Then P is called	A. Whole number B. Prime number C. Even number D. Odd number
18	The set of positive integers, 0 and negative integers is known as the set of	A. Natural numbers B. Rational numbers C. All integers D. Irrational numbers
19	$\sqrt{2} + \sqrt{3} + \sqrt{5} = (\sqrt{2} + \sqrt{3}) + \sqrt{5}$: this property is called	A. associative property w.r.t addition B. commutative property C. Closure property w.r.t addition D. Additive identity
20	$3.5 + 5.4 = 5.4 + 3.5 = 8.9$ this property of addition is called	A. additive identity B. associative property C. commutative property D. closure property
21	$2/9, 5/7 \in \mathbb{R}, (2/9)(5/7) = 10/63 \in \mathbb{R}$ this property is called	A. Associative property B. Identity property C. Commutative property D. Closure property w.r.t multiplication
22	If $0 \in \mathbb{R}$, then the additive inverse of a is	A. $1/9$ B. $1/9$ C. a D. -a
23	The identity element with respect to subtraction is	A. 0 B. -1 C. 0 and 1 D. None of these
24	If a and b are real numbers then a+b is also real number this law is called	A. associative law of addition B. closure law of addition C. Distributive law of addition D. Commutative law of addition
25	The negative square root of 9 can be written as:	A. $-\sqrt{9}$ B. $\sqrt{9}$ C. $\sqrt{18}$ D. $-\sqrt{18}$
26	The $\sqrt{\quad}$ is used for the	A. Positive square root B. Negative square root C. +ve and -ve square root D. Whole number
27	$4/\sqrt{49}$ is a	A. Irrational Number B. Prime Number C. Rational number D. Whole number
28	The additive identity of real number is	A. 1 B. 2 C. $1/2$ D. $b > 0 < b$
29	1 is not	A. Real number B. Natural number C. Prime Number D. Whole Number
30	The multiplicative inverse of x^{-1} is	A. x B. a^{-2} C. 0 D. 1