

ECAT Mathematics Chapter 23

| Sr | Questions | Answers Choice |
|----|--|---|
| 1 | If $A = \{2m/m^3 = 8, m \in \mathbb{Z}\}$ then $A =$ <input type="text"/> | A. {1,8,27} B. {4} C. {2,4,6} D. {2,16,54} |
| 2 | If $O = \{1,3,5,\dots\}$, then $n(O) =$ | A. Infinite B. Even numbers C. odd integers D. 99 |
| 3 | If $B = \{x/x \in \mathbb{Z} \wedge -3 < x < 6\}$, then $n(B) =$ | A. 5 B. $\{-3,-2,-1,0,1,2,3,4,5,6\}$ C. 8 D. 9 |
| 4 | If $a = \{2m/2m < 9, m \in \mathbb{P}\}$, the $(n A) =$ | A. {2,3,4,5,6,7,8} B. {2,4,6,8,\dots,16} C. {4, 6} D. {2,3,5,7} |
| 5 | If $C = \{p/p < 18, p \text{ is a prime number}\}$, then $C =$ | A. {2,3,4,\dots,17} B. {2,4,6,8,\dots,16} C. {1,3,5,7,9,11,13,15,17} D. {3,6,9,12,15} |
| 6 | If $A = \{x/x \text{ is a positive integer and } 4 \leq x < 23\}$, then $A =$ | A. {1,2,3,4,5,6,7} B. {4,5,6,\dots,22} C. {1,2,3,\dots,23} D. {1,2,3,4,5} |
| 7 | \mathbb{Z} is a | A. Infinite set B. Finite set C. Singleton set D. Set of all integers |
| 8 | $\{0\}$ is a | A. Empty set B. Singleton set C. Zero set D. Null Set |
| 9 | Every set is an improper subset of | A. Empty set B. Equivalent set C. Itself D. Singleton set |
| 10 | Empty set is | A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers |
| 11 | 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 |
| 12 | 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. $A \sim B$ |
| 13 | $P \notin A$ means | A. P is subset of A B. P is an element of A C. P does not belongs to A D. A does not element of P |
| 14 | The set of months in a year beginning with S. | A. {September, October, November} B. Singleton set C. Null set D. Empty set |
| 15 | $A = B$ 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

16 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

17 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

18 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

19 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)

20 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