

ECAT Mathematics Chapter 2 Set, Functions and Groups

| Sr | Questions | Answers Choice |
|----|---|---|
| 1 | Question Image | A. A B. B C. A' D. None of these |
| 2 | Question Image | A. Natural numbers B. Whole numbers C. Integers D. Rational numbers |
| 3 | The multiplicative inverse of -1 in the set {1,-1} is | A. 1 B. -1 C. ±1 D. 0 E. Does not exist |
| 4 | The complement of set A relative to universal set U is the set | A. $\{x / x \in A \wedge x \in U\}$ B. $\{x / x \notin A \wedge x \in U\}$ C. $\{x / x \in A \text{ and } x \notin U\}$ D. A-U |
| 5 | Every subset of a finite set is | A. Disjoint B. Null C. Finite D. Infinite |
| 6 | The set of the first elements of the ordered pairs forming a relation is called its | A. Function on B B. Range C. Domain D. A into B |
| 7 | A set having only one element is called | A. An empty set B. Universal set C. A singleton set D. A power set |
| 8 | Question Image | |
| 9 | The set Q | A. Forms a group under addition B. Does not form a group C. Contains no additive identity D. Contains no additive inverse |
| 10 | Question Image | A. n(A) B. n(B) C. 0 D. 1 |
| 11 | Question Image | D. None of these |
| 12 | The function whose range consists of just one element is called | A. One-One Function B. Identity Function C. Onto Function D. Constant Function |
| 13 | If $a = \{2m / 2m < 9, m \in \mathbb{P}\}$, then $(n A) =$ | A. $\{2,3,4,5,6,7,8\}$ B. $\{2,4,6,8, \dots, 16\}$ C. $\{4, 6\}$ D. $\{2,3,5,7\}$ |
| 14 | Question Image | A. A B. A' C. U D. None of these |
| 15 | Question Image | A. -x B. Infinite set C. $\{-4, 4\}$ D. None of these |
| 16 | Which of the following sets is finite | A. The set of natural numbers between 3 and 10 B. The set of rational numbers between 3 and 10 C. The set of integers between 3 and 10 D. The set of real numbers between 3 and 10 |

C. The set of real numbers between 0 and 1
D. The set of rational numbers between 0 and 1

17 The set of all positive even integers is

A. Not a group
B. A group w.r.t. subtraction
C. A group w.r.t. division
D. A group w.r.t. multiplication

18 If A and B are two sets then intersection of A and B is denoted by

A. Infinite set
B. Finite set
C. Set of rational numbers
D. Set of real numbers

20 Question Image

A. A
B. A'
C. U
D. None of these