

ECAT Mathematics Chapter 2 Set, Functions and Groups

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | The set $\{-1, 1\}$ is closed under the binary operation of | A. Addition B. Multiplication C. Subtraction D. Division |
| 2 | The statement that a group can have more than one identity elements is | A. True B. False C. Ambiguous D. Some times true |
| 3 | If $A \subseteq B$, and B is a finite set, then | A. $n(A) < n(B)$ B. $n(B) < n(A)$ C. $n(A) \leq n(B)$ D. $n(A) \geq n(B)$ |
| 4 | Question Image | A. a constant function B. linear function C. quadratic function D. none of these |
| 5 | Question Image | A. $A = B$ B. $B = C$ C. $A = C$ D. None of these |
| 6 | Every subset of a finite set is | A. Disjoint B. Null C. Finite D. Infinite |
| 7 | The set of complex numbers forms | A. Commutative group w.r.t addition B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition |
| 8 | A set having only one element is called | A. An empty set B. Universal set C. A singleton set D. A power set |
| 9 | $A = B$ if | D. A is equivalent to B |
| 10 | A conditional is regarded as false only when the antecedent is true and consequent is | A. True B. False C. Known D. Unknown |
| 11 | $\{0\}$ is a | A. Empty set B. Singleton set C. Zero set D. Null Set |
| 12 | The set $\{-1, 1\}$ is | A. Group under the multiplication B. Group under addition C. Does not form a group D. Contains no identity element |
| 13 | For any set X , $X \cup X$ is | A. X B. X C. \emptyset D. Universal Set |
| 14 | The set of complex numbers forms | A. Commutative group w.r.t addition B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition |
| 15 | If $n(A) = n$ then $n(P(A))$ is | A. $2n$ B. n^2 C. $n/2$ |

16 The set of the first elements of the ordered pairs forming a relation is called its
A. Relation in B
B. Range
C. Domain
D. Relation in A

17 A conjunction of two statements p and q is true only if
A. p is true
B. q is true
C. Both p and q are true
D. both p and q are false

18 Let A, B, and C be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then
A. $A \neq C$
B. $B = C$
C. $A = B$
D. $A \neq B$

19 Question Image

20 Every set is an improper subset of
A. Empty set
B. Equivalent set
C. Itself
D. Singleton set
