

ECAT Mathematics Chapter 2 Set Function and Groups

Sr	Questions	Answers Choice
1	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. $n(A) \geq n(B)$
2	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
3	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
4	The sets $\{1, 2, 4\}$ and $\{4, 6, 8, 10\}$ are	A. Equal sets B. Equivalent sets C. Disjoint sets D. Overlapping sets
5	The set of even prime numbers is	A. $\{2, 4, 6, 8, 10\}$ B. $\{2, 4, 6, 8, 10, 12\}$ C. $\{1, 3, 5, 7, 9\}$ D. $\{2\}$
6	A statement which is either true or false is called	A. Induction B. Deduction C. Proposition D. Logic
7	The function $f\{(x, y) \mid y = ax^2 + bx + c\}$ is	A. One-one function B. Constant function C. Onto function D. Quadratic function
8	Additive inverse of $-a - b$ is	A. a B. $-a + b$ C. $a - b$ D. $a + b$
9	Question Image	A. Addition B. Multiplication C. Division D. Both addition and multiplication
10	Question Image	D. None of these
11	A monoid $(G, *)$ is said to be group if	A. have identity element B. is commutative C. have inverse of each element D. None of these
12	If $\#n = (n-5)^2 + 5$, then find $\#3 \times \#4$.	A. 54 B. 12 C. 4 D. 9
13	If $n(A) = n$ then $n(P(A))$ is	A. $2n$ B. $n^{2/2}$ C. $n/2$ D. $2^{n/2}$
14	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. $A \neq B$
15	$\{1, 2, 3, 4, \dots\}$ is set of _____	A. Natural numbers B. Whole numbers C. Integers D. Rational numbers
16	Question Image	D. none of these


A. Not a group

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 

A. $a-b=ab$
B. $ab=a$
C. $a+b=ab$

19 

20 If a set S contains "n" elements then P (S) has number of elements

A. 2^n
B. 2^{2n}
C. $2 \cdot n$
D. n^{2^2}