

ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	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
2	$\{x x \in R \wedge x \neq x\}$ is a	A. Infinite set B. Null set C. Finite set D. None of these
3	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
4	Question Image <input style="width: 200px; height: 20px;" type="text"/>	A. A B. B C. U D. None of these
5	The function $f\{(x, y) y = ax^2 + bx + c\}$ is	A. One-one function B. Constant function C. Onto function D. Quadratic function
6	The negation of given number is a	A. Binary operation B. Unary operation C. Relation D. None of these
7	Which symbolic notation represent unary operation ?	A. - B. \vee C. \wedge D. \Leftrightarrow
8	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
9	If $A=B$, then	A. $A \subset B$ and $B \subset A$ B. $A \subseteq B$ and $B \not\subseteq A$ C. $A \subseteq B$ and $B \subseteq A$ D. None of these
10	A set having only one element is called	A. An empty set B. Universal set C. A singleton set D. A power set
11	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)
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	If a set S contains "n" elements then P (S) has number of elements	A. $2^{ⁿ}$ B. $2^{²ⁿ}$ C. 2 . n D. $n^{²}$
14	The set R isw.r.t subtraction	A. Not a group B. A group C. No conclusion drawn D. Non commutative group
15	$A \cup (A \cap B) =$ -----	A. B B. A C. AUB D. None of these

16	The function whose range consists of just one element is called	A. One-One Function B. Identity Function C. Onto Function D. Constant Function
17	Question Image <input type="text"/>	
18	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
19	The number of proper subset of $A = \{a, b, c, d\}$ is	A. 3 B. 6 C. 8 D. 15
20	If $a = \{2m/2m < 9, m \in p\}$, the $(n A) =$	A. $\{2, 3, 4, 5, 6, 7, 8\}$ B. $\{2, 4, 6, 8, \dots, 16\}$ C. $\{4, 6\}$ D. $\{2, 3, 5, 7\}$