

ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	The function $f\{(x, y) y = ax^2 + bx + c\}$ is	A. One-one function B. Constant function C. Onto function D. Quadratic function
2	The set $(\mathbb{Z}, +)$ forms a group	A. Forms a group w.r.t addition B. Non commutative group w.r.t multiplication C. Forms a group w.r.t multiplication D. Doesn't form a group
3	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. A finite set B. An infinite set C. An empty set D. None of these
4	$(A \cap B)^c =$	A. $A \cap B$ B. $(A \cup B)^c$ C. $A^c \cup B^c$ D. Φ
5	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
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	B. A C. A' D. U
7	$A = B$ 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
8	The multiplicative inverse of -1 in the set $\{1, -1\}$ is	A. 1 B. -1 C. ± 1 D. 0 E. Does not exist
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
10	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
11	Given X, Y are any two sets such that number of elements in X = 18, number of elements in set Y = 24, and number of elements in set $X \cup Y = 40$, then number of elements in set $X \cap Y =$	A. 3 B. 1 C. 2 D. 4
12	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
13	Decimal part of irrational number is	A. Terminating B. Repeating only C. Neither repeating nor terminating D. Repeating and terminating
14	Every set is an improper subset of	A. Empty set B. Equivalent set C. Itself D. Singleton set
15	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

16	If $A \cap B = B$, then $n(A \cap B)$ is equal to	A. $n(a)$ B. $n(a) + n(c)$ C. $n(c)$ D. None of these
17	Question Image <input type="text"/>	
18	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
19	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. $\{2, 16, 54\}$
20	Question Image <input type="text"/>	A. $A = B$ B. $B = C$ C. $A = C$ D. None of these