

## ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	The set of complex numbers forms a group under the binary operation of	A. Addition B. none of these C. Division D. Subtraction
2	A set having only one element is called	A. An empty set B. Universal set C. A singleton set D. A power set
3	The set of months in a year beginning with S.	A. {September, October, November} B. Singleton set C. Null set D. Empty set
4	The set $\{ \{a, b\} \}$ is	A. Infinite set B. Singleton set C. Two points set D. Empty set
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	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. $A = B$ B. $B = C$ C. $A \neq C$ D. $A \neq B$
7	The function whose range consists of just one element is called	A. One-One Function B. Identity Function C. Onto Function D. Constant Function
8	The identity element of a set X with respect to intersection in $P(X)$ is	A. X B. Does not exist C. $\emptyset$ D. None of these
9	<u>Question Image</u>	D. none of these
10	Decimal part of irrational number is	A. Terminating B. Repeating only C. Neither repeating nor terminating D. Repeating and terminating
11	In a school, there are 150 students. Out of these 80 students enrolled for mathematics class, 50 enrolled for English class, and 60 enrolled for Physics class. The students enrolled for English cannot any other class, but the students of mathematics and Physics can take two courses at a time. Find the number of students who have taken both physics and mathematics	A. 40 B. 30 C. 50 D. 20
12	<u>Question Image</u>	
13	<u>Question Image</u>	A. Singleton set B. A set with two points C. Empty set D. None of these
14	Z is a	A. Infinite set B. Finite set C. Singleton set D. Set of all integers
15	The set $\{1, -1, i, -i\}$ form a group under	A. Addition B. Multiplication C. Subtraction D. None
16	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

17	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
18	Which of the following is the subset of all sets	A. $\Phi$ B. $\{1,2,3\}$ C. $\{\Phi\}$ D. $\{0\}$
19	Question Image <input type="text"/>	
20	Every subset of a finite set is	A. Disjoint B. Null C. Finite D. Infinite