

ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	The set $\{x + iy / x, y \in \mathbb{Q}\}$ forms a group under the binary operation of	A. Addition B. Multiplication C. Division D. Both addition and multiplication
2	Question Image	B. A C. A' D. U
3	$(A \cup B) \cup C = \dots$	A. $A \cap B \cap (B \cup C)$ B. $A \cup (B \cup C)$ C. $A \cup (B \cap C)$ D. None of these
4	Question Image	
5	If $\#n = (n-5)^2 + 5$, then find $\#3 \times \#4$.	A. 54 B. 12 C. 4 D. 9
6	The set $\{1, -1, i, -i\}$	A. Form a group w.r.t addition B. Form a group w.r.t multiplication C. Does not form a group w.r.t multiplication D. Not closed under multiplication
7	Question Image	A. A B. A' C. U D. A A'
8	The complement of set A relative to universal set U is the set	
9	If p and q are two statements then their conjunction is denoted by	
10	Under multiplication, solution set of is	A. Groupoid B. Abelian group C. Semi group D. All of these
11	Which of the following statement is true?	A. A set is a collection of non-empty object B. A set is a collection of only numbers C. A set is any collection of things D. a set is well-defined collection of objects
12	$\{0\}$ is a	A. Empty set B. Singleton set C. Zero set D. Null Set
13	The set of natural is a semi group w.r.t	A. Addition B. Division C. Subtraction D. None of these
14	\varnothing set is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
15	If P is a proposition then its negative is denoted by	
16	Question Image	
17	The set $\{ \{a, b\} \}$ is	A. Infinite set B. Singleton set C. Two points set D. Empty set
		A. A finite set

18

Question Image

- B. An infinite set
- C. An empty set
- D. None of these

19

A set having only one element is called

- A. An empty set
- B. Universal set
- C. A singleton set
- D. A power set

20

The extraction of cube root of a given number is a

- A. Unary Operation
- B. Binary Operation
- C. Relation
- D. None of these