

ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	Which symbolic notation represent unary operation ?	A. - B. \vee C. \wedge D. \Leftrightarrow
2	Φ set is the _____ of all sets	A. Subset B. Union C. Universal D. Intersection
3	Decimal part of irrational number is	A. Terminating B. Repeating only C. Neither repeating nor terminating D. Repeating and terminating
4	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
5	The extraction of cube root of a given number is a	A. Unary Operation B. Binary Operation C. Relation D. None of these
6	Identity w.r.t intersection in a power set of any set is	A. \emptyset B. Set itself C. Singleton set D. $\{0\}$
7	If A is a subset of B and B contains at least one element which is not an element of A, then A is said to be	A. Improper subset of B B. Super set of B C. Proper subset of B D. None of these
8	Question Image	A. An empty set B. Universal set C. A singleton set D. None of these
9	Question Image	A. A B. A' C. U D. None of these
10	If p and q are two statements then their biconditional 'p if q' is denoted by	
11	Power set of X i.e $P(X)$ _____ under the binary operation of union U	A. Forms a group B. Does not form a group C. Has no identity element D. Infinite set although X is infinite
12	Question Image	A. 4 B. 3 C. 2 D. 1
13	Question Image	
14	The set R isw.r.t subtraction	A. Not a group B. A group C. No conclusion drawn D. Non commutative group
15	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
16	If A and B are two sets then any subset R of $B \times A$ is called	A. relation on A B. relation on B C. relation from A to B D. relation from B to A

17	The set $\{\{a,b\}\}$ is	A. Infinite set B. Singleton set C. Two points set D. None
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	A function in which the second elements of the order pairs are distinct is called	A. Onto function B. One-one function C. Identity function D. Inverse function
20	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