

ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	Φ set is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
2	A function whose range is just one elements is called	A. One-one function B. Constant function C. Onto function D. Identity function
3	The function $f\{(x, y) \mid y = ax^2 + bx + c\}$ is	A. One-one function B. Constant function C. Onto function D. Quadratic function
4	If the intersection of two sets is non-empty, but either is a subset of other are called	A. Disjoint sets B. Overlapping C. Equal sets D. None of these
5	Two sets A and B are said to be disjoint if	
6	Z is the set of integers (Z^*) is a group with $a * b = a + b + 1$, $a, b \in G$. then inverse of a is	A. -a B. a + 1 C. -1-a D. None of these
7	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
8	Question Image	A. A B. A' C. U D. None of these
9	Question Image	D. None of these
10	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
11	Question Image	A. A B. A' C. U D. A A'
12	A conditional "if p then q" is denoted by	
13	The graph of a quadratic function is	A. Circle B. Ellipse C. Parabola D. Hexagon
14	Which of the following sets is finite	A. The set of natural numbers between 3 and 10 B. The set of rational numbers between 3 and 10 C. The set of real numbers between 0 and 1 D. The set of rational numbers between 0 and 1
15	The set of complex numbers forms	A. Commutative group w.r.t addition B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition
16	$(A \cap B)^c =$	A. $A \cap B$ B. $(A \cup B)^c$ C. $A \cup B$ D. $A \cap B$

C. $A \cap B \cap C$
D. \emptyset

17 Power set of X i.e $P(X)$ _____ under the binary operation of union \cup

- A. Forms a group
B. Does not form a group
C. Has no identity element
D. Infinite set although X is infinite

18 The set X is

- A. Proper Subset of X
B. Not A subset of X
C. Improper Subset of X
D. None of these

19 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

20 The set of complex numbers forms a group under the binary operation of

- A. Addition
B. Multiplication
C. Division
D. Subtraction