

## ECAT Mathematics Chapter 2 Set, Functions and Groups

Sr	Questions	Answers Choice
1	Question Image	
2	If there is one-one correspondence between A and B, then we write.	A. $A = B$ B. $A \subseteq B$ C. $A \supseteq B$ D. $A - B$
3	The complement of set A relative to universal set U is the set	
4	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
5	Question Image	D. none of these
6	Question Image	A. A B. B C. $A \setminus B$ D. $B \setminus A$
7	The total number of subsets that can be formed out of the set $\{a, b, c\}$ is	A. 1 B. 4 C. 8 D. 12
8	Question Image	
9	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
10	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
11	Under multiplication, solution set of is	A. Groupoid B. Abelian group C. Semi group D. All of these
12	Question Image	A. A B. B C. $A'$ D. None of these
13	If $A = \{x/x \text{ is a positive integer and } 4 \leq x < 23\}$ , then $A =$	A. $\{1, 2, 3, 4, 5, 6, 7\}$ B. $\{4, 5, 6, \dots, 22\}$ C. $\{1, 2, 3, \dots, 23\}$ D. $\{1, 2, 3, 4, 5\}$
14	If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$ then which expression defines the product of $z_1$ and $z_2$	A. $36 + (-32)i$ B. $-36 + 32i$ C. $6 + (-11)i$ D. $0, +(-12)i$
15	Question Image	
16	If a 1-1 correspondence can be established b/w two sets A and B, then they are called	A. Equal sets B. Equivalent sets C. Overlapping sets D. None of these
17	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
		A. 1

18	Question Image	B. 12 C. 5 D. 29
19	$(A \cap B)^c =$	A. $A \cap B$ B. $(A \cup B)^c$ C. $A^c \cup B^c$ D. $\Phi$
20	If $A \subseteq B$ , and B is a finite set, then	A. $n(A) < n(B)$ B. $n(B) < n(A)$ C. $n(A) \leq n(B)$ D. $n(A) \geq n(B)$