

Mathematics ECAT Pre Engineering Chapter 2 Set, Functions and Groups Online Test

Sr	Questions	Answers Choice
1	Question Image	A. A B. A' C. U D. A A'
2	Question Image	
3	The multiplicative inverse of x such that $x \neq 0$ is	A. -x B. Does not exist C. $1/x$ D. ± 1
4	A conditional is regarded as false only when the antecedent is true and consequent is	A. True B. False C. Known D. Unknown
5	Φ set is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
6	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
7	Question Image	A. A onto B B. both a & c C. A into B D. none of these
8	The set $\{1, -1, 1, -1\}$, form a group under	A. Addition B. Multiplication C. Subtraction D. None
9	Decimal part of irrational number is	A. Terminating B. Repeating only C. Neither repeating nor terminating D. Repeating and terminating
10	Question Image	A. A B. B C. U D. None of these
11	The set which has no proper subset is	A. $\{0\}$ B. $\{\}$ C. $\{\emptyset\}$ D. None of these
12	The set $\{\mathbb{Z} \setminus \{0\}\}$ is group w.r.t	A. Addition B. Multiplication C. Division D. Subtraction
13	The set of whole numbers is subset of	A. The set on integers B. The set of natural numbers C. $\{1, 3, 5, 7, \dots\}$ D. The set of prime numbers
14	If $x = 1/x$ for $x \in \mathbb{R}$ then the value of x is	A. ± 1 B. 0 C. 2 D. 4
15	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

16	If $B-A \neq \emptyset$, then $n(B-A)$ is equal to	A. $n(a)+n(c)$ B. $n(c)-n(a)$ C. $n(a)-n(c)$ D. None of these
17	Question Image	
18	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
19	If $n(A) = n$ then $n(P(A))$ is	A. $2n$ B. n^{2^2} C. $n/2$ D. 2^{2^n}
20	The number of subsets of $B = \{1,2,3,4,5\}$	A. 10 B. 32 C. 16 D. 5