

ECAT Mathematics Chapter 2 Set Function and Groups

Sr	Questions	Answers Choice
1	Write down the power set of {9, 11}	
2	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
3	What is the number of elements of the power set of {0, 1}	A. 1 B. 2 C. 3 D. 4
4	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
5	If $n(X) = 18$, $n(X \cap Y) = 7$, $n(X \cup Y) = 40$ then $n(Y) =$	A. 1 B. 12 C. 5 D. 29
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	The set of complex numbers forms a group under the binary operation of	A. Addition B. Multiplication C. Division D. Subtraction
8	$(A \cup B) \cup C =$ -----	A. $A \cap B(B \cup C)$ B. $A \cup (B \cap C)$ C. $A \cup (B \cap C)$ D. None of these
9	The set of integers is a subset of	A. The set of natural numbers B. The set of whole numbers C. The set of prime numbers D. The set of rational numbers
10	To each element of a group there corresponds _____ inverse element	A. Two B. One C. No D. Three
11	Multiplicative inverse of 0 is	A. 0 B. 1 C. +1 D. Does not exist
12	If $\#n = (n-5)^2 + 5$, then find $\#3 \times \#4$.	A. 54 B. 12 C. 4 D. 9
13	Question Image <input style="width: 200px; height: 20px;" type="text"/>	A. $1/x$ B. $-x$ C. $2x$ D. $0.5x$
14	The set which has no proper subset is	A. {0} B. {} C. {∅} D. None of these
15	A monoid $(G, *)$ is said to be group if	A. have identity element B. is commutative C. have inverse of each element D. None of these

16	Question Image	
17	Question Image	A. Addition B. Subtraction C. Multiplication D. None of these
18	Empty set is	A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers
19	Question Image	
20	Which of the following is the subset of all sets	A. Φ B. {1,2,3} C. { Φ } D. {0}