

## ECAT Mathematics Chapter 23

Sr	Questions	Answers Choice
1	Question Image	
2	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
3	Question Image	A. $A = B$ B. $B = C$ C. $A = C$ D. None of these
4	Question Image	A. 1 B. 12 C. 5 D. 29
5	Question Image	A. 3 B. 1 C. 2 D. 4
6	In set builder notation the set $\{0, 1, 2, \dots, 100\}$ can be written as	
7	Question Image	A. A B. B C. A' D. None of these
8	For any set B, $B \cup B'$ is	A. Is set B B. Set B' C. Universal set D. None of these
9	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
10	The set $(\mathbb{Q}, \cdot)$	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
11	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
12	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
13	The set $\{1, -1, 1, -1\}$ , form a group under	A. Addition B. Multiplication C. Subtraction D. None
14	The multiplicative inverse of -1 in the set $\{1, -1\}$ is	A. 1 B. -1 C. 0 D. Does not exist
15	The set of complex numbers forms a group under the binary operation of	A. Addition B. Multiplication C. Division D. Subtraction
16	The graph of a quadratic function is	A. Circle B. Ellipse C. Parabola D. Hexagon

17	The set of the first elements of the ordered pairs forming a relation is called its	A. Function on B B. Range C. Domain D. A into B
18	The set $\{\{a,b\}\}$ is	A. Infinite set B. Singleton set C. Two points set D. None
19	Which of the following is the subset of all sets?	
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