

## ECAT Mathematics Chapter 2 Set Function and Groups

| Sr | Questions  | Answers Choice   |
|----|--|--|
| 1  | The set of even prime numbers is                                   | A. $\{2,4,6,8,10\}$<br>B. $\{2,4,6,8,10,12\}$<br>C. $\{1,3,5,7,9\}$<br>D. $\{2\}$                            |
| 2  | $\{0\}$ is a   | A. Empty set<br>B. Singleton set<br>C. Zero set<br>D. Null Set   |
| 3  | If $A \cap B = B$ , then $n(A \cap B)$ is equal to                 | A. $n(a)$<br>B. $n(a) + n(c)$<br>C. $n(c)$<br>D. None of these   |
| 4  | Question Image   | A. square root function<br>B. identity function<br>C. linear function<br>D. quadratic function               |
| 5  | If $A$ is a set then any subset $R$ of $A \times A$ is called      | A. relation on $A$<br>B. relation on $B$<br>C. relation from $A$ to $B$<br>D. relation from $B$ to $A$       |
| 6  | Question Image   | D. None of these   |
| 7  | If $O = \{1,3,5,\dots\}$ , then $n(O) =$                           | A. Infinite<br>B. Even numbers<br>C. odd integers<br>D. 99   |
| 8  | The set $\{1, -1, i, -i\}$ form a group under                      | A. Addition<br>B. Multiplication<br>C. Subtraction<br>D. None  |
| 9  | Multiplicative inverse of "1" is                                   | A. $\pm 1$<br>B. 0<br>C. 1<br>D. None of these   |
| 10 | The set $X$ is   | A. Proper Subset of $X$<br>B. Not A subset of $X$<br>C. Improper Subset of $X$<br>D. None of these           |
| 11 | Question Image   | A. Singleton set<br>B. A set with two points<br>C. Empty set<br>D. None of these                             |
| 12 | $\{x : x \in Z \text{ and } x < 1\}$ is                            | A. Singleton set<br>B. A set with two points<br>C. Empty set<br>D. None of these                             |
| 13 | The complement of set $A$ relative to universal set $U$ is the set |  |
| 14 | What is the number of elements of the power set of $\{\}$          | A. 0<br>B. 1<br>C. 2<br>D. 3   |
| 15 | Question Image   |  |
| 16 | The contra positive of $p \rightarrow q$ is                        | A. $q \rightarrow p$<br>B. $\sim q \rightarrow \sim p$<br>C. $\sim p \rightarrow \sim q$<br>D. None of these |
| 17 | Question Image   | A. $A = B$<br>B. $B = C$<br>C. $A = C$<br>D. None of these   |

18 Question Image

B. 1

C. 2

D. 4

19 if  $A = \{x/x \in Q \wedge 0 < x < 1\}$ , the A is

A. Infinite set

B. Finite set

C. Set of rational numbers

D. Set of real numbers

20 Question Image