

## Sets and Functions

Sr	Questions	Answers Choice
1	$(A \cap B)' =$ _____	A. $A' \cup B'$ B. $A' \cap B'$ C. $A \cap B$ D. $A \cup B$
2	If $A \subseteq B$ then $A \cup B$ is equal to	A. A B. B C. $\emptyset$ D. None of these
3	Power set of an empty set is:	B. {a}
4	Power set of an empty set is.	A. $\emptyset$ B. {a} C. $\{\emptyset, \{a\}\}$ D. $\{\emptyset\}$
5	The domain of $\{(a,b), (b,c), (c,d)\}$ is.....	A. {a,b,c} B. {b,c,d} C. {a,b} D. {a,b,c,d}
6	The range of $\{(a,a), (b,b), (c,c)\}$ is .....	A. {a,b} B. {a,b,c} C. {a} D. $\emptyset$
7	A collection of well-defined distinct object is called:	A. Subset B. Power set C. Set D. None of these
8	If $A \subseteq B$ then $A \cup B =$ _____	A. A B. B C. $\emptyset$ D. None of these
9	If $A \subseteq B$ then $A - B$ is equal to	A. A B. B C. $\emptyset$
10	If union and intersection of two sets are equal then sets are.....sets.	A. Disjoint B. Overlapping C. Equal D. Super
11	A set with no element is called:	A. Subset B. Empty set C. Singleton set D. Super set
12	If $x \in U$ and $x \notin A$ , then $\{x\}$ is equal to .....	A. $U^{\supset c}$ B. $A^{\supset c}$ C. $\emptyset^{\supset c}$ D. $A - U$
13	If $A = \{1,2,3\}$ , $B = \{4,5\}$ and $R = \{(1,4), (2,5), (3,4)\}$ then R is _____	A. One - one function from A to B B. A function A to B C. Not a function D. An onto function from A to B
14	If A is subset of U, then $(A^c)^c =$ .....	A. A B. $A^{\supset c}$ C. $U^{\supset c}$ D. $\emptyset$
15	$O \cap E =$ .....	A. $\emptyset$ B. O C. E D. Z
16	If A has two elements and B has 3 elements, then number of binary relations in $A \times B$ is _____	A. $2 \times 3$ B. $2^{\supset 3}$ C. $2^{\supset 6}$ D. $2^{\supset 5}$

17 If  $B = \{1, 2, 100\}$  and  $C = \{2, 100\}$ , then  $B \cap C =$  \_\_\_\_\_

- A.  $\{1, 2\}$
- B.  $\{1, 2, 100\}$
- C.  $\{2\}$
- D.  $\{2, 1\}$

18 Which of the following is distributive property of union over intersection?

- A.  $A \cup (B \cap C) = A \cup (B \cup C)$
- B.  $A \cap (B \cap C) = (A \cap B) \cap C$
- C.  $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
- D.  $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

19 A set  $Q = \{a/b \mid a, b \in \mathbb{Z}^+, b \neq 0\}$  is called a set of.

- A. Whole numbers
- B. Natural number
- C. Irrational numbers
- D. Rational numbers

20 If A and B are two disjoint sets then  $A \cup B =$  \_\_\_\_\_

- A. A
- B. B
- C.  $\emptyset$
- D.  $B \cup A$