ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Arithmetic   **Class: 7**   **Date: 29.04.20**
Duration: 40 min   **Worksheet 15**   **Full Marks: 15**
SET THEORY CONTINUED

Choose the Correct options:

1 Which of the following statements denote an empty set?
   A. { }
   B. set ()
   C. [0].
   D. (<>)

2. The Cardinality of the set of even natural numbers less than 10 is
   A. 2
   B. 4
   C. 8
   D. None of these

3: If A and B are sets and A∪B= A ∩ B, then
   A. A = Φ
   B. B = Φ
   C. A = B
   D. none of these

4: Let S be an infinite set and S1, S2, S3,… Sn be sets such that S1 ∪S2 ∪S3∪ ....Sn = S then
   A. at least one of the sets Si is a finite set
   B. not more than one of the set Si can be finite
   C. at least one of the sets Si is an infinite set
   D. none of these

5: If X and Y are two sets, then X ∩ (Y ∪ X) equals
   A. X
   B. Y
   C. Ø
   D. None of these

6: Which of the following sets are null sets?
   A. {0}
   B. ø
   C. { }
   D. Both (b) & (c)

7. If A ∩ B^c =∅
   A. A = B
   B. B A
   C. A is proper subset of B
   D. None of these

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8. $A^c - B^c$ is equal to
   A. B-A
   B. A-B
   C. A= B
   D. None of these

9. If A =$\emptyset$ then total number of elements in {A} are
   A. No element
   B. Zero
   C. two
   D. one

10 The smallest set A such that $A \cup \{4,5\} = \{1,2,3,4,5\}$ is
   A. {3,4,5}
   B. {1.2.3}
   C. {1,2}
   D. { 1,2,3,4,5}

11. If A= { 1,2,3} & B= { 4,5,6} then , n(A∪B) is equal to
   A. 6
   B. 9
   C. 27
   D. None of these

12. If A & B are two sets such that n(A)= 15, n(B)= 21, & n(A∪B) = 36 then n(A∩B) equal
to
   A. 2
   B. 0
   C. 4
   D. 15

13. If P & Q are two sets such that P ∪ Q has 20 elements , P has 9 elements & Q has 16 elements .
How many elements does P∩Q have ?
   A. 5
   B. 4
   C. 3
   D. 0

14 If A & B are sets and n(A∩ B - A ∪ B) =$\emptyset$, then
   A. A =$\emptyset$
   B. B =$\emptyset$
   C. A = B
   D. None of these

15. Which of the following are equal sets?
A. {B,E,A,R} and {D,E,A,R}
B. {R, I, D, E} and {D, I, R,E}
C. {1,2,3,4} and {12, 23, 34,41}
D. {11, 12, 13} and {14, 15, 16}

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