ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Arithmetic **Class: 7** **Date: 24.06.20**

Duration: 40 min **Worksheet Solutions 40** **Full Marks: 15**

SETS

Choose the Correct options:

1. Which one of the following sets is infinite?
   (a) The set of whole numbers less than 10
   (b) The set of prime numbers less than 10
   (c) The set of integers less than 10
   (d) The set of factors of 10

2. A is the set of factors of 18. Which of the following is not a member of A?
   (a) 2
   (b) 3
   (c) 5
   (d) 9

3. If A = {1, 3, 5, 7, 9} and B = {2, 3, 5, 7}, what is A ∪ B?
   (a) {3, 5, 7}
   (b) {2, 3, 5, 7}
   (c) {2, 3, 5, 7, 9}
   (d) {1, 2, 3, 5, 7, 9}

4. If A = {1, 3, 5, 7, 9} and B = {2, 3, 5, 7}, what is A ∩ B?
   (a) {3, 5, 7}
   (b) {2, 3, 5, 7}
   (c) {2, 3, 5, 7, 9}
   (d) {1, 2, 3, 5, 7, 9}

5. If X = {a, e, i, o, u} and Y = {a, b, c, d, e}, then what is Y - X ?
   (a) {a, e}
   (b) {i, o, u}
   (c) {b, c, d}
   (d) {b, c, d, i, o, u}

6. If A = {1, 3, 5, 6, 7, 9} and B = {2, 3, 5, 7, 9}, what is A ∪ B?
   (a) {3, 5, 7, 9}
   (b) {2, 3, 5, 6, 7}
   (c) {2, 3, 5, 6, 7, 9}
   (d) {1, 2, 3, 5, 6, 7, 9}

7. If A = {1, 3, 5, 6, 7, 9} and B = {2, 3, 5, 7, 9}, what is A ∩ B?
   (a) {3, 5, 7, 9}
   (b) {2, 3, 5, 6, 7}
   (c) {2, 3, 5, 6, 7, 9}
   (d) {1, 2, 3, 5, 6, 7, 9}

8. The Universal Set = { -4, 3, -2, -1, 0, 1, 2, 3 ,4} and A = {0}. What is the complement of A?
   (a) {-4, -3, -2, -1, 0, 1, 2, 3}
   (b) {-3, -2, -1, 1, 2, 3}
   (c) {-4, -3, -2, -1, 1, 2, 3, 4}
   (d) {-4, -3, -2, -1, 1, 2, 3}

9. If P = {0, 1, 2, 3, 4}, Q = {4, 6, 8} R = {6, 12, 18} Then what is (P ∩ Q) ∪ (Q ∩ R)?
(a) {4}
(b) {4, 6}
(c) {4, 6, 8}
(d) {1, 2, 3, 4, 6, 8}

10. If P = {0, 1, 2, 3, 4}, Q = {4, 5, 6, 7} R = {3, 6, 9}, and S = {6, 12, 18}
Then what is (P ∪ Q) ∩ (S ∪ R)?
(a) {6}
(b) {3, 6}
(c) {4, 6}
(d) {1, 2, 3, 4, 5, 6, 7, 9, 12, 18}

11. If A = {1, 3, 5, 15}, B = {2, 3, 5, 7} C = {2, 4, 6, 8} then what is (A U B) ∩ C ?
(a) {1,3,5}
(b) {1,2,3}
(c) {2,3,5}
(d) {2}

12. If U (the universal set) = {1, 3, 5, 7, 9, 11, 13, 15, 17} and W = {5, 7, 9, 11}, then W' = ...
(a) {1, 3, 13, 15, 17}
(b) {1, 3}
(c) {2, 4, 6, 8, 10, 12, 14, 16}
(d) {1, 3, 5, 7, 9, 11, 13, 15, 17}

13. P={a, b, c, d, e, f, g, h, i, j, k, l,m}
(a) Roster Form
(b) Universal Form
(c) Set Builder Notation
(d) Equivalent Inequalities

14. What type of set is denoted as either { } or ∅?
(a) Superset
(b) Empty (or Null) Set
(c) Disjointed Set
(d) Subset

15. If set A equals the people in your class and set B equals the people in your class who wear glasses. What is meant by A∩B?
(a) All the people in your class.
(b) The people in your class who wear glasses.
(c) The people in your class who do not wear glasses.
(d) Some of the people in your class who wear glasses