EduSahara™ Assignment

Name : Operations on Sets

Chapter : Sets

Grade : ICSE Grade VIII

1. If A = {5,4,1} and B = {4,3,0} , then A ∪ B =

   (i) {0,5,4,1,3} (ii) {0,5,3,1} (iii) {1,3,4,0,8} (iv) {4,3,5,1} (v) {4,0,1,5,3,8}

2. If A = {4,7,8,9} and B = {9,3,10,4} , then A ∪ B =

   (i) {9,4,3,10,8} (ii) {12,9,7,8,10,3,4} (iii) {8,4,10,7,9,3} (iv) {4,3,9,7,10,12} (v) {10,7,3,4,8}

3. If A = {5,13,15} , B = {4,9,6} and C = {4,2,1} , then A ∪ (B ∪ C) =

   (i) {1,18,9,6,2,13,15,4,5} (ii) {5,4,9,13,6,2,15} (iii) {5,6,13,15,4,1,2,9} (iv) {6,5,1,4,13,9,2}

   (v) {9,15,4,2,1,13,5}

4. If A = {13,10,2} , B = {11,12,7} and C = {9,5,0,4} , then A ∪ (B ∪ C) =

   (i) {11,9,13,5,10,7,12,2,0} (ii) {5,7,9,10,12,2,13,4,0} (iii) {10,2,11,5,9,7,0,12,13,4}

   (iv) {4,9,5,13,11,2,0,12,19,10,7} (v) {11,5,7,12,4,2,10,0,9}

5. If A = {9,7,3} and B = {0,4,7} , then A ∩ B =

   (i) {7,3} (ii) {7} (iii) {4,7} (iv) {0,3,7} (v) {7,13}

6. If A = {8,5,10,4,0} and B = {0,6,5,2,7} , then A ∩ B =

   (i) {5,0,7} (ii) {5,0,8,6} (iii) {0,4,5} (iv) {0,5} (v) {5,0,15}

7. If A = {1,13,14,7,2,8,4} and B = {9,10,11,2,12,0,14} , then A ∩ B =

   (i) {17,2,14} (ii) {14,2,7} (iii) {4,14,1,2} (iv) {2,14} (v) {2,14,0}

8. If A = {8,6,4} and B = {4,5,3} , then B ∩ A =

   (i) {6,8,4} (ii) {4,8} (iii) {4} (iv) {5,4} (v) {4,11}

9. If A = {2,4,1,7,6} and B = {0,3,4,10,5} , then B ∩ A =

   (i) {4,1} (ii) {4,2,6} (iii) {4,14} (iv) {4,3} (v) {4}

10. If A = {15,7,12,14,13,6,5} and B = {6,13,4,10,7,14,11} , then B ∩ A =

    (i) {6,14,7,19,13} (ii) {4,13,6,10,14,7} (iii) {6,13,14,7} (iv) {7,6,13,14,11} (v) {13,14,6,12,7}

11. If A = {0,7,14,12,2,8} , B = {14,1,5,13,6,3} and C = {9,6,10,11,14,15}, then A ∩ (B ∩ C) =

    (i) {14,11} (ii) {19,14} (iii) {13,14} (iv) {14,12} (v) {14}

12. If A = {5,7,6,4} and B = {2,10,8,4} , then A − B =

    (i) {2,10,8} (ii) {5,6,7} (iii) {6,15,5,7} (iv) {6,7,5,4} (v) {5,6}

13. If A = {9,0,10,7,13} and B = {15,8,10,4,13} , then A − B =

    (i) {9,7} (ii) {15,8,4} (iii) {0,7,9} (iv) {13,0,9,7} (v) {0,19,9,7}

14. If A = {7,2,0,1} and B = {3,5,4,1} , then B − A =

(i) {3,5} (ii) {5,4,3} (iii) {13,3,5,4} (iv) {1,3,4,5} (v) {}

15. If A = {10,1,8,0,6} and B = {11,0,15,13,6} , then B − A =

(i) {6,13,15,11} (ii) {11,13} (iii) {11,15,17,13} (iv) {} (v) {13,15,11}

16. The symmetric difference of set A = {12,4,1,8,7,14} and set B = {6,0,7,2,13,14} is

(i) {13,6,0,2} (ii) {4,12,8,1} (iii) {0,6,1,4,13,12,8,2} (iv) {13,6,2,12,8,4,0} (v) {0,2,13,8,1,6,7,4,12}

17. If A = {-6,3,-1,1,2} and μ = {-6,3,-1,1,2,7,-2,-5}, find A ∪ A

(i) {4,2,-1,1,-6,5,3} (ii) {3,2,1,-6,-1} (iii) {-6,10,1,-1,2} (iv) {} (v) {-1,3,1,-6}

18. If A = {8,-3,4,-8,6,-2,0} and μ = {8,-3,4,-8,6,-2,0,3,-7,-9,-6}, find A ∪ ∅

(i) {8,-8,0,6,4,-2} (ii) {} (iii) {4,0,-3,-2,8,-8,6} (iv) {2,-3,9,-2,0,-8,6} (v) {-3,1,-1,-8,6,-2,8,4,0}

19. If A = {-2,-6,-9,6,-7,3,-5} and μ = {-2,-6,-9,6,-7,3,-5,7,5,-1,8}, find A ∪ μ

(i) {8,-1,-9,-7,-5,-6,3,7,5,6,-2} (ii) {-6,5,7,6,8,-7,3,-1,-9,-2} (iii) {-5,3,8,6,5,-1,0,-7,-6,-9,-2,1,7}

(iv) {4,-7,-6,-2,7,-5,-14,6,13,3,-1} (v) {-7,6,7,-5,-4,3,-2,-9,5,8,-1}

20. If A = {6,9,-5,-3,4} and μ = {6,9,-5,-3,4,-9,-8,3}, find A ∩ A

(i) {-5,-3,4,6,9} (ii) {3,4,6,-5,-3,9,5} (iii) {6,9,1,-6,-5} (iv) {4,9,6,-3} (v) {10,-3,-5,4,9}

21. If A = {6,2,-7,8,3,-5,-6} and μ = {6,2,-7,8,3,-5,-6,-9,-8,-1,1}, find A ∩ ∅

(i) {4} (ii) {3,5} (iii) {}

22. If A = {1,7,4,-1,6} and μ = {1,7,4,-1,6,-6,3,2}, find A ∩ μ

(i) {0,7,1,-1,4} (ii) {2,0,7,1,-1,6,4} (iii) {1,7,4,6} (iv) {-1,4,7,6,1} (v) {}

23. If A = {4,-7,3,5,2,9} and μ = {4,-7,3,5,2,9,1,0,-4,-5}, find A'

(i) {-5,-4,0,6} (ii) {2,-4,1,5,0,-5} (iii) {1,-5,-4} (iv) {-9,0,-3,5} (v) {0,-5,-4,1}

24. If A = {-3,-4,-1,-5,-2,1} and μ = {-3,-4,-1,-5,-2,1,2,7,8,0}, find A ∪ A'

(i) {-5,8,-1,7,-4,3,-3,1,2,0,-2,4} (ii) {7,0,8,-5,-3,-1,2,1,-4,-2} (iii) {} (iv) {-1,-3,0,-4,7,1,2,-2,-5}

(v) {9,7,2,1,-4,-3,0,-5,-2,4}

25. If A = {5,-1,1} and μ = {5,-1,1,2,7}, find A ∩ A'

(i) {} (ii) {4,0} (iii) {2} (iv) {-1}

26. If A = {-7,5,7,-8,-2} and μ = {-7,5,7,-8,-2,3,-5,4}, find (A')'

(i) {-7,5,7,1,-3} (ii) {5,2,7,3,-7,-2,-8} (iii) {-2,7,-8,5,-7} (iv) {7,-2,5,-8} (v) {5,7,-1,-7,-8}

27. If μ = {8,17,15,10,1,7,3,18,-9,12,4,-2,-7,9,6,2,14,16,-3,-1,-4,-5,-6,-8},A = {8,17,15,10,1,7,3,18,-9,12}, B = {4,-2,-9,17,1,18,10,-7}, C = {9,6,2,17,3,1,14,12,16}, find A ∩ B ∩ C

(i) {17} (ii) {1,17,15} (iii) {1} (iv) {1,17} (v) {17,15}

28. If μ = {14,15,-7,7,0,-8,-9,10,12,-1,-4,13,3,6,4,-6,5,9,8,-2,-5,1,2,11},A = {14,15,-7,7,0,-8,-9,10,12}, B = {-9,-1,-4,14,13,10}, C = {3,6,12,4,-6,14,5,9,15}, find A ∪ (B ∩ C)

(i) {10,-7,15,0,-9,-8,12,7,9} (ii) {10,-7,15,0,-9,-8,12,7} (iii) {10,-7,14,15,0,-9,-8,12,7}

(iv) {10,-7,14,15,0,-9,-8,12,7,9} (v) {10,-7,14,15,0,-9,12,7}

29. If μ = {4,0,-4,11,-7,13,-8,2,1,-6,-9,7,5,-5,-3,8,-1,6,12,3,10},A = {4,0,-4,11,-7,13}, B = {13,-8,2,4,1,-4,-6,-9,-7}, C = {7,2,-4,5,-5,-3,13}, find B ∪ (C ∩ A)

(i) {1,-6,13,-4,-8,-7,2,4} (ii) {1,-9,-6,13,-4,-8,-7,4} (iii) {1,-9,-6,13,-4,-8,-7,2,4}

(iv) {1,-9,-6,13,-4,-8,-7,2,4,6} (v) {1,-9,-6,13,-4,-8,-7,4,6}

30. If μ = {-5,-6,11,6,-2,-9,2,9,10,7,0,-1,5,4,1,-7,-4,13,12,-8,8,-3},A = {-5,-6,11,6,-2,-9,2,9}, B = {10,7,-9,0,9,-1,11}, C = {5,9,4,1,-7,2,6}, find C ∪ (A ∩ B)

(i) {2,-7,11,-9,6,4,9,5} (ii) {1,2,-7,-9,6,4,9,5} (iii) {1,2,-7,11,-9,6,4,9,5} (iv) {1,2,-7,-9,6,4,9,5,7}

(v) {1,2,-7,11,-9,6,4,9,5,7}

31. If μ = {-4,1,-8,-7,-1,-9,-2,13,5,4,8,15,14,-5,3,0,7,-6,11,2,6,10},A = {-4,1,-8,-7,-1,-9}, B = {-2,-9,13,5,-4,4,-1,-8,8,15}, C = {13,4,5,14,-5,-1,-7,-4}, find A ∩ (B ∪ C)

(i) {-4,-9,-7,-1,-8,4} (ii) {-4,-7,-1,-8,4} (iii) {-4,-9,-1,-8} (iv) {-4,-9,-7,-1,-8} (v) {-4,-7,-1,-8}

32. If μ = {2,-9,7,-8,0,9,5,-7,15,13,1,12,-6,-3,10,3,6,11,8,-1,-5,14},A = {2,-9,7,-8,0,9,5,-7,15,13}, B = {15,1,12,-6,5,2,13,-3}, C = {-3,-6,10,5,3,-9}, find B ∩ (C ∪ A)

(i) {13,15,-3,5,-6} (ii) {13,15,2,-3,5,-9} (iii) {13,15,2,-3,5,-6} (iv) {13,15,2,-3,5,-6,-9} (v) {13,15,2,-3,5}

33. If μ = {-7,7,2,4,-4,9,13,-5,6,-2,10,5,-6,-8,14,-3,8,-1,11,12},A = {-7,7,2,4,-4,9,13,-5}, B = {2,13,6,-2,10,5}, C = {-6,4,-5,5,9,-8,6,14,2}, find C ∩ (A ∪ B)

(i) {-5,4,9,2,5,6,7} (ii) {-5,4,2,5,6,7} (iii) {-5,4,9,2,5,6} (iv) {-5,4,2,5,6} (v) {-5,9,2,5,6}

Assignment Key

1) (i)	2) (iii)	3) (iii)	4) (iii)	5) (ii)	6) (iv)
7) (iv)	8) (iii)	9) (v)	10) (iii)	11) (v)	12) (ii)
13) (iii)	14) (ii)	15) (v)	16) (iii)	17) (ii)	18) (iii)
19) (i)	20) (i)	21) (iii)	22) (iv)	23) (v)	24) (ii)
25) (i)	26) (iii)	27) (iv)	28) (iii)	29) (iii)	30) (iii)
31) (iv)	32) (iii)	33) (iii)			