EduSahara™ Assignment

Name : Universal Set and Subsets

Chapter : Sets

Grade : SSC Grade X

1. If A = {7,1,9,6,3}, which of the following are true?

   a) $7 \in A$
   b) $\{3,7\} \subset A$
   c) $A \supset 7$
   d) $7 \subset A$
   e) $7 \notin A$

   (i) {c,a} (ii) {a,b} (iii) {d,b,a} (iv) {d,b} (v) {e,c,a}

2. If A and B are disjoint sets, which of the following are true?

   a) $B \subset A$
   b) $A \subset B$
   c) $A \cap B = A$
   d) $A \cap B = \varnothing$
   e) $A \cup B = A$

   (i) {a,d} (ii) {c,e,d} (iii) {b,d} (iv) {d}

3. If A = {k,f,l,m,p}, which of the following are true?

   a) $l \subset A$
   b) $A \supset l$
   c) $l \in A$
   d) $l \notin A$
   e) $\{p\} \subset A$

   (i) {b,e} (ii) {b,e,c} (iii) {d,a,c} (iv) {a,c} (v) {c,e}

4. Given sets A, B and C, where $A \subset B \subset C$, which of the following are true?

   a) $\varnothing \subset B$
   b) $B \supset A$
   c) $B \subset A$
   d) $C \supset B$
   e) $C \subset A$

   (i) {e,b} (ii) {c,a} (iii) {c,a,b} (iv) {c,e,d} (v) {a,b,d}

5. If $A \subset B$, then which of the following are true?

   a) $B \supset A$
   b) $B \subset A$
   c) $A' \subset B$
   d) $A' = B$
   e) $A = B$

   (i) {b,a} (ii) {d,e,a} (iii) {c,a} (iv) {a}

6. If $A \subset B$, then which of the following are true?

a) $A \cup B = A$
b) $A \cap B = A$
c) $A \cup B = \varnothing$
d) $A \cup B = B$
e) $A \cap B = B$

(i) {e,a,b} (ii) {b,d} (iii) {c,d,b} (iv) {c,d} (v) {a,b}

7. If $A \subset B$, then which of the following are true?

a) $A - B = \varnothing$
b) $B - A = B$
c) $B - A = A$
d) $A \cup B = \varnothing$
e) $A - B = B$

(i) {c,a} (ii) {a} (iii) {b,a} (iv) {d,e,a}

8. Given 5 sets $A = \{6,7,4,10\}$, $B = \{10,7,4,6\}$, $C = \{3,1,6,9,8,10,7\}$, $D = \{19,15,13,16,11,12,18\}$ and $E = \{4,9,3,7,6,2,5,1,10,8\}$, which of the following are true?

a) $C \leftrightarrow D$
b) $A \leftrightarrow C$
c) $A = B$
d) $A \subset C$
e) $C = D$

(i) {d,c} (ii) {e,b,a} (iii) {d,c,a} (iv) {a,c} (v) {b,a}

9. Which of the following is 'subset' symbol?

(i) $\subseteq$ (ii) $\subset$ (iii) $\supseteq$ (iv) $\not\subset$ (v) $\in$

10. Which of the following is 'subset or equal to' symbol?

(i) $\subset$ (ii) $\cup$ (iii) $\subseteq$ (iv) $\leftrightarrow$ (v) $\not\supset$

11. Which of the following is 'not a subset' symbol?

(i) $\notin$ (ii) $\not\supset$ (iii) $\supset$ (iv) $\supseteq$ (v) $\not\subset$

12. Which of the following is 'superset' symbol?

(i) $\leftrightarrow$ (ii) $\supset$ (iii) $\cap$ (iv) $\supseteq$ (v) $\notin$

13. Which of the following is 'superset or equal to' symbol?

(i) $\leftrightarrow$ (ii) $\cup$ (iii) $\supseteq$ (iv) $\not\subset$ (v) $\notin$

14. Which of the following is 'not a superset' symbol?

(i) $\supset$ (ii) $\not\supset$ (iii) $\subseteq$ (iv) $\subset$ (v) $\cup$

15. Which of the following is 'universal set' symbol?

(i) $\cap$ (ii) μ (iii) $\not\supset$ (iv) $\subseteq$ (v) $\cup$

16. Which of the following is a subset of set A = {4,-8,7,-1,8}?

(i) {0,-8,-1,8,4,7} (ii) μ (iii) {4,-8,-1,2,8} (iv) {-8,4,7,8,-1} (v) {∅}

17. Which of the following is a subset of set A = {4,-1,-6,5,-7}?

(i) {-4,5,4,-1,-7} (ii) ∅ (iii) μ (iv) {∅} (v) {-7,-1,-6,-9,4,5}

18. Which of the following is a proper subset of A = {3,4,5}?

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

19. Find the number of proper subsets of A = {3,0,4,5,2,1}

(i) 64 (ii) 60 (iii) 65 (iv) 63 (v) 62

20. Which of the following is not a subset of A = {9,6,8,0,4}?

(i) {9,8,4,6} (ii) {9,0,7,8} (iii) {0,6,8,9} (iv) {6,8,4} (v) {9,6,8,0,4}

21. Which of the following is superset of A = {0,8,9}?

(i) {9,0} (ii) {8,0,3} (iii) {8} (iv) {7,9,0} (v) {9,4,8,0}

22. Which of the following is not a superset of A = {1,8,4,7,2,0}?

(i) {2,1,3,7,0,8,4} (ii) {8,2,7,0,4,1} (iii) {0,4,9,1,7,8,2} (iv) {2,8,5,1,4,0} (v) {7,1,2,8,0,4,5}

23. Which of the following diagrams represent 'A is subset of B'?

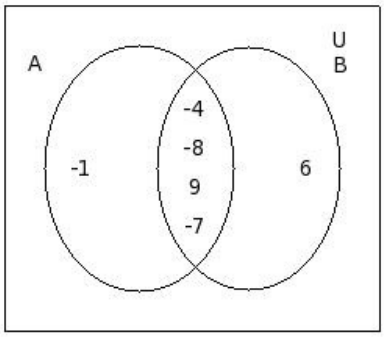


figure 1

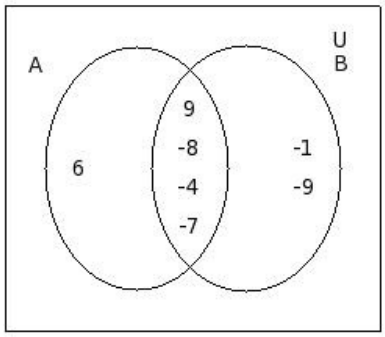


figure 2

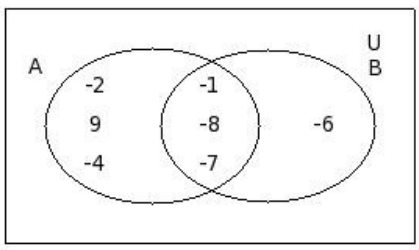


figure 3

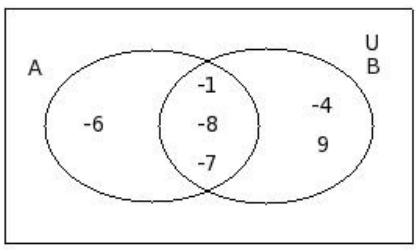


figure 4

(i) None of the above (ii) figure 3 (iii) figure 4 (iv) figure 2 (v) figure 1

24. Which of the following is a subset of A = {4}?

(i) {} (ii) {0,5} (iii) {0} (iv) {0,2,5}

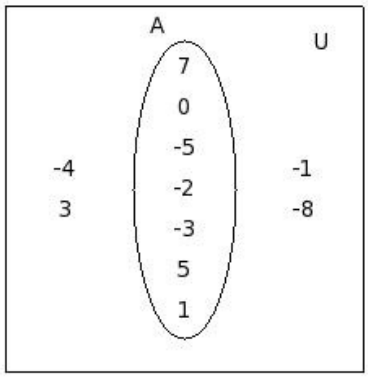
25. Which of the following is a subset of A = {5,4,8,0,10}?

(i) {5,0,4} (ii) {1,6,3} (iii) {0,5,4,1,6} (iv) {5,8,6,10,4} (v) {3,4,0,5}

26. Which of the following is a subset of A = {6,13,2,0,10,15,14}?

(i) {12} (ii) {4,9} (iii) {12,4,9} (iv) {0,9,14,13,10,15,6} (v) {}

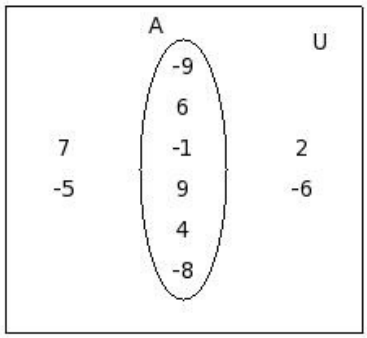
27. Find μ



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

(v) {5,-2,-1,-5,0,3,-8,1,-3,-4}

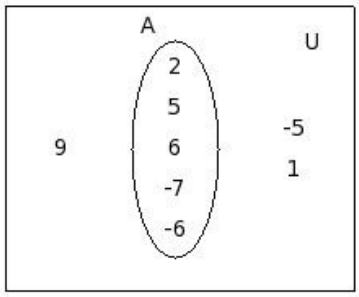
28. Find A ∪ μ



(i) {-9,3,7,6,-6,4,0,9,1,2,-3} (ii) {6,3,-6,-9,2,9,-3,4,7} (iii) {-6,2,9,-1,4,6,-9,7,-8}

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

29. Find A ∩ μ



(i) {2,-7,6,5,-6} (ii) {6,2,10,-3} (iii) {5,6,-3,2} (iv) {-7,5,6,2} (v) {-1,6,5,-3,10,2}

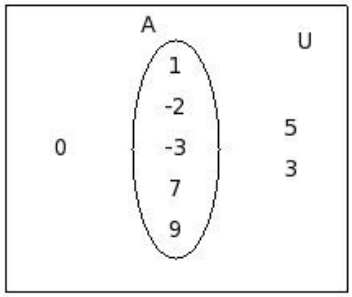
30. If A = {0,2,-2,-3,-7,-9,6} and μ = {0,2,-2,-3,-7,-9,6,3,7,-4,8}, find A ∪ μ

(i) {7,6,-2,3,-9,2,-4,8,-7,-3} (ii) {} (iii) {-9,-3,8,-7,6,3,-4,7,0,2,-2} (iv) {-4,-2,7,-7,0,3,-1,8,-3,6,-9,2,4}

31. If A = {-9,-7,-8} and μ = {-9,-7,-8,7,-6}, find A ∩ μ

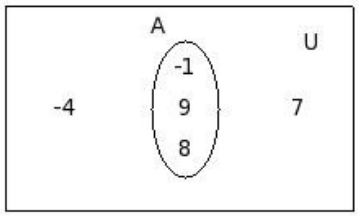
(i) {-7,-8} (ii) {-7,5,-9,-8,4} (iii) {-6,-9,-7} (iv) {-9,-7,-8} (v) {-9,-4,-16}

32. Find n(μ)



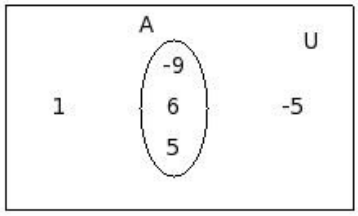
(i) 10 (ii) 6 (iii) 8 (iv) 9 (v) 7

33. Find n(A ∪ μ)



(i) 8 (ii) 4 (iii) 2 (iv) 6 (v) 5

34. Find n(A ∩ μ)



(i) 2 (ii) 3 (iii) 4 (iv) 1 (v) 6

Assignment Key

1) (ii)	2) (iv)	3) (v)	4) (v)	5) (iv)	6) (ii)
7) (ii)	8) (iv)	9) (ii)	10) (iii)	11) (v)	12) (ii)
13) (iii)	14) (ii)	15) (ii)	16) (iv)	17) (ii)	18) (iv)
19) (iv)	20) (ii)	21) (v)	22) (iv)	23) (i)	24) (i)
25) (i)	26) (v)	27) (iii)	28) (iv)	29) (i)	30) (iii)
31) (iv)	32) (iii)	33) (v)	34) (ii)		