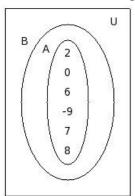
Name: Chapter Based Worksheet

Chapter : Sets

Grade: SSC Grade X

License: Non Commercial Use

1. Which of the following diagrams represent equal sets?



A 2 0 4 8 6

figure 1

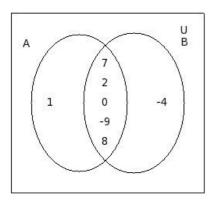


figure 2

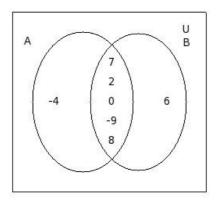
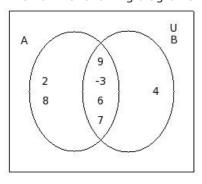


figure 3

figure 4

- (i) figure 2 (ii) figure 1 (iii) figure 4 (iv) figure 3
- 2. If  $A = \{6,15,0,13,11\}$  and  $B = \{13,0,6,10,11\}$ , then  $A B = \{13,0,6,10,11\}$ 
  - (i) {} (ii) {16,15} (iii) {15} (iv) {10} (v) {13,15}
- 3. If A = {-4,0,4,2,-7} and  $\mu$  = {-4,0,4,2,-7,3,-9,-2}, find A  $\cap$  A
- 4. Which of the following is 'minus' symbol?
  - (i) (ii)  $\cap$  (iii)  $\supset$  (iv)  $\leftrightarrow$  (v)  $\subseteq$
- 5. Which of the following symbols represent the set of Integers?
  - (i) Q (ii) Z (iii) W (iv) N (v)  $Q^{t}$
- 6. Which of the following is a null set?
  - (i)  $\{-5,4,-9\}$  (ii)  $\{\}$  (iii)  $\{2,-7\}$  (iv)  $\{-9,1,-3,8\}$  (v)  $\{2,3,0,8,-7\}$

- 7. Which of the following are equivalent sets?
  - a) {-6,2}
  - b) {6,2,7,9}
  - c)  $\{-2,7,-3,-1,-6\}$
  - d) {1,0,-1}
  - e) {-3,-4,3}
  - (i)  $\{c,a,d\}$  (ii)  $\{b,e\}$  (iii)  $\{b,e,d\}$  (iv)  $\{d,e\}$  (v)  $\{a,d\}$
- 8. Which of the following diagrams represent 'A is subset of B'?



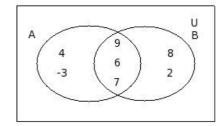


figure 1

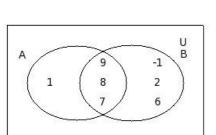


figure 2

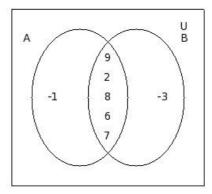
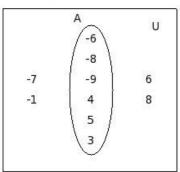


figure 3

figure 4

- (i) figure 4 (ii) figure 2 (iii) None of the above (iv) figure 3 (v) figure 1
- 9. Which of the following elements does not belong to the set {7,8,4,2,9}?
  - (i) 8 (ii) 2 (iii) 7 (iv) 1 (v) 9
- 10. Find A υ μ



- (i)  $\{\}$  (ii)  $\{4,6,8,-5,-9,5,-1,3,-6\}$  (iii)  $\{-5,-9,0,3,-1,2,-6,4,8,6,5\}$  (iv)  $\{3,5,8,-6,-1,4,-7,6,-8,-9\}$
- $(v) \{-1,4,5,3,-9,-7,6,-8,8\}$
- 11. Which of the following is a proper subset of  $A = \{5,4,3\}$ ?
  - (i) {2,4,3} (ii) {0,5} (iii) {5,4,3} (iv) {3,5} (v) {5,1}

12. If  $\mu = \{0,8,-4,5,9,-3,2,-2,-8\}$ ,  $A = \{0,8,-4\}$  and  $B = \{8,-4,5,9\}$ , find A - B

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

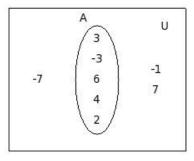
13. Which of the following is 'universal set' symbol?

(i)  $\not\in$  (ii)  $\supseteq$  (iii)  $\mu$  (iv)  $\in$  (v)  $\not\supset$ 

14. If  $A = \{0,6,8,3\}$  and  $B = \{4,5,9,3\}$ , then B - A =

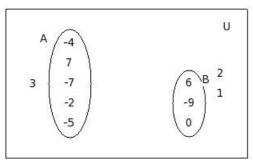
(i) {} (ii) {5,4,9} (iii) {9,4} (iv) {4,9,11,5} (v) {3,9,4,5}

15. Find A n Ø



(i)  $\{8,1,3,2\}$  (ii)  $\{8,1\}$  (iii)  $\{3\}$  (iv)  $\{\}$  (v)  $\{8\}$ 

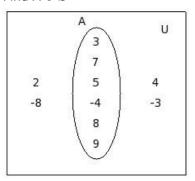
16. Find  $(A \cup B) - (A \cap B)$ 



(i)  $\{-5,7,-9,6,0,-7,-2\}$  (ii)  $\{-7,-9,-5,6,0,7,-4,-2\}$  (iii)  $\{-2,0,3,6,-7,7,-9,-4\}$  (iv)  $\{-5,7,3,-7,-9,6,-4,0,-2\}$ 

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

17. Find A ∪ Ø



(i)  $\{-4,5,3,8,9\}$  (ii)  $\{5,8,14,3,-4\}$  (iii)  $\{5,3,-4,14,12\}$  (iv)  $\{12,3,2,5,1,-4,14\}$  (v)  $\{3,7,8,-4,5,9\}$ 

18. If  $\mu = \{0,-1,8,-7,-3,-9,4,-5,2,10,6,9,-2,7,-8,-6,-4,1\}$ ,  $A = \{0,-1,8,-7,-3,-9,4\}$  and  $B = \{-5,-1,2,10,6,9,-9\}$ , find  $A \cap B = \{-4,-1,8,-7,-3,-9,4\}$ 

(i)  $\{-9,-1\}$  (ii)  $\{-1\}$  (iii)  $\{-1,-9,-4\}$  (iv)  $\{-9\}$  (v)  $\{-6,-1\}$ 

19. If  $A = \{1,7,4,9\}$  and  $B = \{5,7,8,9\}$ , then A - B =

(i) {4} (ii) {8,5} (iii) {4,7,1} (iv) {4,1} (v) {1,13,4}

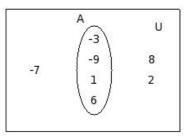
20. Which of the following is a subset of  $A = \{3\}$ ?

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

21. If  $\mu = \{1, -7, -4, -2, 8, 3, -3, 7, -6, -9, 2, 5, 9, -8\}$ ,  $A = \{1, -7, -4, -2, 8, 3\}$  and  $B = \{-2, -3, 1, 7\}$ , find  $n((A - B) \cup (B - A))$ 

(i) 6 (ii) 8 (iii) 7 (iv) 5 (v) 4

22. Find n(∅)



(i) (-3) (ii) 1 (iii) (-1) (iv) 2 (v) 0

23. Which of the following is not a subset of  $A = \{2,1,5,4,8,6,9,3,7\}$ ?

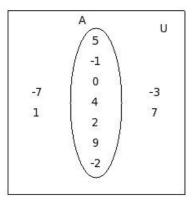
(i)  $\{2,1,5,4,8,6,9,3,7\}$  (ii)  $\{7,8,5,6,1,9,2\}$  (iii)  $\{9,5,1,8,4,7,6,3\}$  (iv)  $\{7,0,2,9,5,6,3,8\}$ 

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

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

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

25. Find A



 $(i) \ \{9,2,4,5,-1,-2,0\} \ (ii) \ \{11,1,0,4,-1,-2,5,2\} \ (iii) \ \{2,4,-2,5,0,9\} \ (iv) \ \{2,5,0,-2,11,-1\} \ (v) \ \{-1,0,2,4,9,5\}$ 

Assignment Key					
1) (ii)	2) (iii)	3) (ii)	4) (i)	5) (ii)	6) (ii)
7) (iv)	8) (iii)	9) (iv)	10) (iv)	11) (iv)	12) (ii)
13) (iii)	14) (ii)	15) (iv)	16) (ii)	17) (v)	18) (i)
19) (iv)	20) (v)	21) (i)	22) (v)	23) (iv)	24) (v)
25) (i)					

Copyright © Small Systems Computing Pvt. Ltd.