EduSahara™ Assignment

Name : Set Concepts

Chapter : Sets

Grade : SSC Grade X

1. Which of the following is a singleton set?

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

2. Which of the following is a null set?

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

3. Which of the following is equal to set A = {7,5,-3,-5}?

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

4. Which of the following is equivalent set of A = {5,-7,-8}?

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

5. Which of the following is an infinite set?

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

6. If A = {2,7,9,3,1}, which of the following are true?

   a) $2 \in A$
   b) $\{9,3\} \subset A$
   c) $2 \subset A$
   d) $2 \notin A$
   e) $A \supset 2$

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

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

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

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

8. If A = {b,e,c,z,g}, which of the following are true?

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

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

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

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

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

10. Which of the following are true?

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

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

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

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

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

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

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

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

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

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

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

14. Given 5 sets $A = \{9,4,8,2\}$, $B = \{9,8,4,2\}$, $C = \{6,3,5,10,2,1,8\}$, $D = \{16,11,17,19,12,15,13\}$ and $E = \{3,6,1,4,5,9,2,8,10,7\}$, which of the following are true?

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

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

15. Which of the following are disjoint sets?

(i) $\{8,1,15,5,13,9\}, \{8,1,15,5,13,9\}$ (ii) $\{8,5,13\}, \{10,19,12\}$ (iii) $\{8,1,15,5,13,9\}, \{10,15,19,1,12,9\}$

(iv) $\{8,1,15,5,13,9\}, \{\}$ (v) $\{\}, \{8,1,15,5,13,9\}$

16. Which of the following are overlapping sets?

(i) $\{14,3,6,1\}, \{11,2,9,8,20,19\}$ (ii) $\{14,3,6,1\}, \{2,9,20\}$ (iii) $\{14,3,6,8,1,19,11\}, \{\}$

(iv) $\{14,3,6,8,1,19,11\}, \{11,2,9,8,20,19\}$ (v) $\{14,3,6,8,1,19,11\}, \{2,9,20\}$

17. Which of the following elements belong to the set {10,1,7,6,4}?

(i) 16 (ii) 0 (iii) (-1) (iv) 1 (v) 15

18. Which of the following is 'intersection' symbol?

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

19. Which of the following is 'minus' symbol?

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

20. Which of the following is 'complement' symbol?

(i) ' (ii) $\not\supset$ (iii) $\cup$ (iv) $\cap$ (v) $\leftrightarrow$

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

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

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

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

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

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

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

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

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

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

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

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

27. Which of the following is 'equivalent set' symbol?

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

28. Which of the following is 'belongs to' symbol?

(i) $\notin$ (ii) $\in$ (iii) $\cap$ (iv) $\supseteq$ (v) $\subseteq$

29. Which of the following is 'does not belongs to' symbol?

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

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

(i) μ (ii) $\leftrightarrow$ (iii) $\in$ (iv) $\supset$ (v) $\notin$

31. Which of the following is 'null set' symbol?

(i) $\varnothing$ (ii) $\cup$ (iii) $\subseteq$ (iv) $\notin$ (v) $\supseteq$

32. Which of the following elements does not belong to the set {10,6,7,5,4}?

(i) 2 (ii) 10 (iii) 7 (iv) 6 (v) 5

33. Which of the following elements does not belong to the set {s,m,b,e,u}

(i) m (ii) g (iii) u (iv) b (v) s

34. Which of the following is not equal to set A = {9,7,3,2,8,4,10,6}?

(i) {7,8,9,10,4,2,3,6} (ii) {6,2,9,10,1,3,8,4} (iii) {6,10,9,4,2,8,3,7} (iv) {2,10,6,9,4,3,7,8}

(v) {3,6,9,4,10,8,7,2}

35. Which of the following is an empty set?

(i) {} (ii) {o} (iii) {0} (iv) {$\varnothing$} (v) {empty}

36. Which of the following is a null set?

(i) {$\varnothing$} (ii) {empty} (iii) {0} (iv) $\varnothing$ (v) {o}

37. Which of the following are null sets?

a) {}
b) {2,6,8}
c) {empty}
d) $\varnothing$
e) {$\varnothing$}

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

38. Which of the following sets are not equivalent to set {6,4,9,10,3,5}?

a) {9,3,1,10}
b) {4,6,7,8,9,5}
c) {4,10,5,7,9,6}
d) {7,2,6,9,5,4}
e) {9,7,2,5,3,1,10}

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

39. Which of the following are equivalent sets?

a) {-2,-3,-7,-8,-1}
b) {-9,-6,9}
c) {5,-9,9,-2}
d) {6,0,-6}
e) {-5,8}

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

40. Which of the following sets have same cardinality?

a) {-3,-8,-2,4}
b) {-9,7,9}
c) {-5,2,-4,5,7}
d) {-8,-3}
e) {-9,-4,9}

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

41. Which of the following diagrams represent equivalent sets?

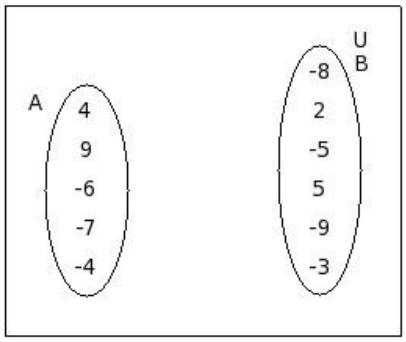

figure 1

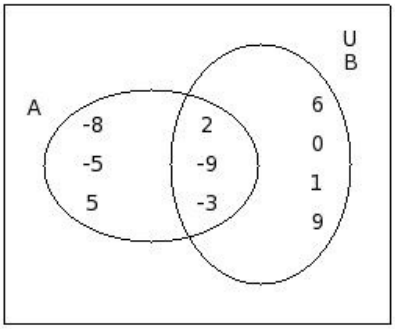

figure 2

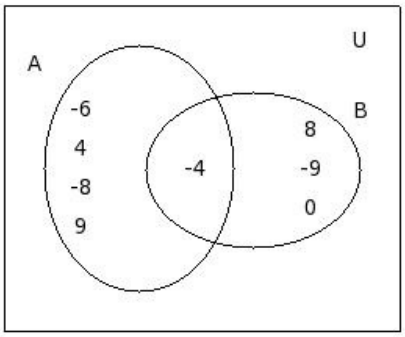

figure 3

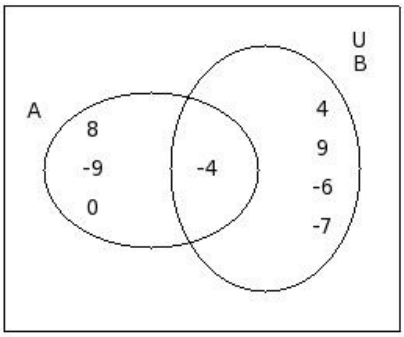

figure 4

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

42. What is the cardinality of an empty set?

(i) 1 (ii) 0 (iii) 3 (iv) 5 (v) (-1)

43. Which of the following diagrams represent equal sets?

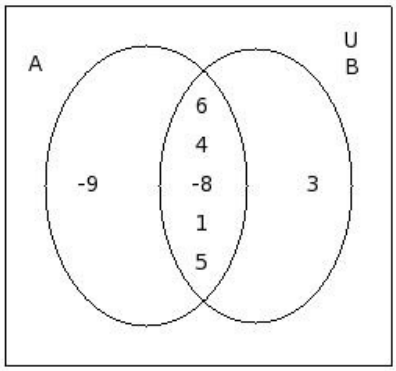

figure 1

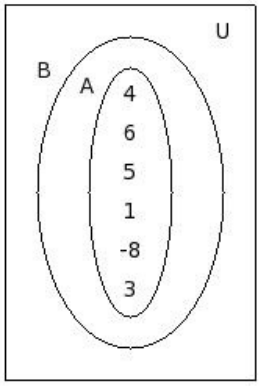

figure 2

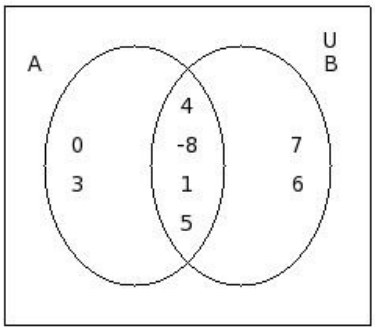

figure 3

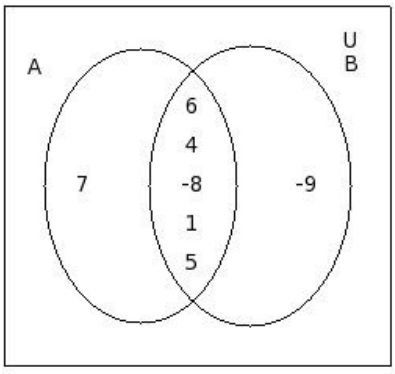

figure 4

(i) figure 1 (ii) figure 2 (iii) figure 4 (iv) figure 3

44. Which of the following symbols represent the set of Natural numbers ?

(i) Q (ii) Z (iii) W (iv) R (v) N

45. Which of the following symbols represent the set of Whole numbers ?

(i) Z (ii) W (iii) Q' (iv) R (v) N

46. Which of the following symbols represent the set of Integers ?

(i) W (ii) Z (iii) N (iv) Q (v) R

47. Which of the following symbols represent the set of Rational numbers ?

(i) R (ii) Q' (iii) W (iv) Q (v) Z

48. Which of the following symbols represent the set of Irrational numbers ?

(i) Q (ii) Q' (iii) Z (iv) R (v) W

49. Which of the following symbols represent the set of Real numbers ?

(i) R (ii) Z (iii) N (iv) Q (v) W

50. Find the cardinality of A = {0,-4,9,-9,-2}

(i) 7 (ii) 5 (iii) 6 (iv) 4 (v) 2

51. If A = {-7,-3}, then n(A) = ?

(i) 3 (ii) 0 (iii) 2 (iv) 1 (v) 5

52. Which of the following is 'union' symbol?

(i) $\cup$ (ii) $\in$ (iii) $\notin$ (iv) $\subset$ (v) $\subseteq$

Assignment Key

1) (iv)	2) (iv)	3) (ii)	4) (ii)	5) (v)	6) (iii)
7) (ii)	8) (iv)	9) (iv)	10) (iv)	11) (ii)	12) (i)
13) (iii)	14) (i)	15) (ii)	16) (iv)	17) (iv)	18) (iv)
19) (iv)	20) (i)	21) (i)	22) (iv)	23) (ii)	24) (v)
25) (v)	26) (v)	27) (iii)	28) (ii)	29) (iii)	30) (i)
31) (i)	32) (i)	33) (ii)	34) (ii)	35) (i)	36) (iv)
37) (iii)	38) (iii)	39) (iv)	40) (ii)	41) (v)	42) (ii)
43) (ii)	44) (v)	45) (ii)	46) (ii)	47) (iv)	48) (ii)
49) (i)	50) (ii)	51) (iii)	52) (i)		