



1. If  $A = \{4,5,2\}$  and  $B = \{1,0,5\}$ , then  $A \cup B =$   
(i)  $\{0,4,1,2,5\}$  (ii)  $\{2,4,1,7,5,0\}$  (iii)  $\{2,4,0,5\}$  (iv)  $\{0,2,1,5\}$  (v)  $\{4,7,2,0,5\}$
2. If  $A = \{10,3,2,0\}$  and  $B = \{9,8,4,7\}$ , then  $A \cup B =$   
(i)  $\{7,3,2,8,4,10,15,0,9\}$  (ii)  $\{4,0,3,9,10,8,7,2\}$  (iii)  $\{10,3,2,7,8,0,4\}$  (iv)  $\{4,3,9,8,10,7,2\}$   
(v)  $\{8,7,12,10,3,4,2,0\}$
3. If  $A = \{12,3,10,9,8\}$  and  $B = \{6,5,14,13,4\}$ , then  $A \cup B =$   
(i)  $\{3,5,12,4,9,10,13,14,6,8\}$  (ii)  $\{13,3,10,14,8,19,12,4,9,5,6\}$  (iii)  $\{14,13,19,8,3,9,12,5,4,10\}$   
(iv)  $\{12,5,3,4,9,13,14,6,10\}$  (v)  $\{12,8,3,9,14,4,10,5,13\}$
4. If  $A = \{8,2,4\}$  and  $B = \{10,9,1\}$ , then  $A \cap B =$   
(i)  $\{12\}$  (ii)  $\{4\}$  (iii)  $\{1\}$  (iv)  $\{\}$  (v)  $\{2,9\}$
5. If  $A = \{6,8,2,3,4\}$  and  $B = \{7,5,3,4,9\}$ , then  $A \cap B =$   
(i)  $\{4,11,3\}$  (ii)  $\{3,4\}$  (iii)  $\{3,4,8\}$  (iv)  $\{8,3,6,4\}$  (v)  $\{4,3,5\}$
6. If  $A = \{2,5,13,7,0,15,12\}$  and  $B = \{14,15,11,4,6,5,13\}$ , then  $A \cap B =$   
(i)  $\{5,15,0,13\}$  (ii)  $\{5,13,15,0,4\}$  (iii)  $\{15,5,13\}$  (iv)  $\{13,15,14,5\}$  (v)  $\{13,5,15,19\}$
7. If  $A = \{9,-8,8,3,7,-3\}$  and  $\mu = \{9,-8,8,3,7,-3,-1,2,6,-6\}$ , find  $A \cup A$   
(i)  $\{8,9,-8,3,-3,7\}$  (ii)  $\{9,7,-1,2,-10,8\}$  (iii)  $\{7,-3,9,3,8\}$  (iv)  $\{8,-3,7,1,-8,9,3,0\}$  (v)  $\{-8,8,9,10,-3,3\}$
8. If  $A = \{6,0,-3\}$  and  $\mu = \{6,0,-3,-7,-4\}$ , find  $A \cup \emptyset$   
(i)  $\{6,-3\}$  (ii)  $\{6,-3,0\}$  (iii)  $\{2,3,-3,0,6\}$  (iv)  $\{\}$  (v)  $\{1,-3,6\}$
9. Which of the following are true?  
a)  $A \cup \emptyset = \emptyset$   
b)  $A \cup A = A$   
c)  $A \cap \emptyset = A$   
d)  $A \cup \emptyset = A$   
e)  $A \cup A = \emptyset$   
  
(i)  $\{a,b\}$  (ii)  $\{e,a,b\}$  (iii)  $\{c,d\}$  (iv)  $\{c,d,b\}$  (v)  $\{b,d\}$
10. For any two non-empty sets A and B, which of the following are true?  
a)  $A \cup B = B \cup A$   
b)  $A \cup B = \emptyset$   
c)  $A \cap B = B \cap A$   
d)  $A \cap B = B \cup A$   
e)  $A \cup B = B \cap A$   
  
(i)  $\{e,b,a\}$  (ii)  $\{d,c,a\}$  (iii)  $\{a,c\}$  (iv)  $\{b,a\}$  (v)  $\{d,c\}$

11. If  $A = \{3,1,-6\}$  and  $\mu = \{3,1,-6,6,8\}$ , find  $A \cup \mu$   
(i)  $\{0,3,6,8,4,-6,1\}$  (ii)  $\{-8,1,12,-1,6\}$  (iii)  $\{3,6,8,1,-6\}$  (iv)  $\{1,-6,3,6\}$  (v)  $\{6,1,8,3,-5\}$
12. If  $A = \{-8,0,-7\}$  and  $\mu = \{-8,0,-7,-9,8\}$ , find  $A \cap \mu$   
(i)  $\{-8,-7,0,-1,2\}$  (ii)  $\{0,-7,-8\}$  (iii)  $\{-7,0\}$  (iv)  $\{-8,-7,-2\}$  (v)  $\{-6,-8,0\}$
13. If  $A = \{-7,0,-8,-3,-4\}$  and  $\mu = \{-7,0,-8,-3,-4,-1,1,5\}$ , find  $A \cap \emptyset$   
(i)  $\{1\}$  (ii)  $\{\}$  (iii)  $\{2,-1\}$  (iv)  $\{-1\}$
14. If  $A = \{-7,-5,-9,-6,1,6\}$  and  $\mu = \{-7,-5,-9,-6,1,6,7,4,-2,9\}$ , find  $A \cap \mu$   
(i)  $\{-5,1,6,-6,-7,2,3,-9\}$  (ii)  $\{\}$  (iii)  $\{6,-5,-7,-9,1,-6\}$  (iv)  $\{-9,-5,-8,-7,6,1\}$  (v)  $\{-6,-5,6,-9,-7\}$
15. If  $\mu = \{-8,-2,-7,-1,-9,-4,6,2,-3,4,1,7,5,8,9,3\}$ ,  $A = \{-8,-2,-7,-1,-9,-4\}$  and  $B = \{-2,6,2,-9,-3,-4\}$ , find  $n(A)$   
(i) 7 (ii) 9 (iii) 4 (iv) 6 (v) 5
16. If  $\mu = \{-9,-3,-5,0,-1,1,8,-6,-8,7,6,4,-2,5,9,3\}$ ,  $A = \{-9,-3,-5,0,-1,1,8\}$  and  $B = \{-6,-3,-8,1,-1,0\}$ , find  $n(B)$   
(i) 9 (ii) 3 (iii) 7 (iv) 6 (v) 5
17. If  $\mu = \{-9,3,-2,7,-4,-1,-3,2,5,-6,9,0,4,8\}$ ,  $A = \{-9,3,-2,7,-4,-1,-3\}$  and  $B = \{2,5,-6\}$ , find  $n(A \cup B)$   
(i) 13 (ii) 9 (iii) 8 (iv) 10 (v) 11
18. If  $\mu = \{-5,-4,5,7,-7,2,1,9,3,-2,-1\}$ ,  $A = \{-5,-4,5,7\}$  and  $B = \{-7,-4,-5,5\}$ , find  $n(A \cap B)$   
(i) 1 (ii) 6 (iii) 3 (iv) 2 (v) 4

## Assignment Key

1) (i)	2) (ii)	3) (i)	4) (iv)	5) (ii)	6) (iii)
7) (i)	8) (ii)	9) (v)	10) (iii)	11) (iii)	12) (ii)
13) (ii)	14) (iii)	15) (iv)	16) (iv)	17) (iv)	18) (iii)