

## Challenging problems-I

- (1) If  $n(A \cap B) = 4$  and  $n(A) = 7$  then find minimum value of  $n(B)$
- (A) 7                      (B) 5                      (c) 0                      (d) 4
- (2) If  $A = \{x, y) : x + 2y = 7\}$   
 $B = (x, y) : x + 2y = 8\}$  then  $n(A \cap B) =$
- (A) 0                      (B) 1                      (C)  $\infty$                       (D) More than 1
- (3) If  $U$  is universal set for  $A$  &  $B$  then  $B - A^c$  is.
- (A)  $A \cup B$                       (B)  $(A \cap B)$                       (C)  $A - B$                       (D)  $B^c$

## Challenging Problems-II

1. Draw Venn diagram of  $A \Delta B^c$
2. Write the following set in roaster form :  
 $A = \{x | x \text{ is a positive integer less than } 10 \text{ and } 2^x - 1 \text{ is an odd Number}\}$
3. If  $aN = \{ax : x \in N\}$ , then the set  $6N \cap 8N$  is equal to-  
(1)  $8N$             (2)  $48N$             (3)  $12N$             (4)  $24N$