

## EX:-10 (D)

i)  $\{ 3, 5, 7, \dots \}$   I

ii)  $\{ 1, 2, 3, 4 \}$   F

iii)  $\{ \dots, -3, -2, -1, 0, 1, 2 \}$   I

iv)  $\{ 20, 30, 40, 50, \dots, 200 \}$   I

- 2. i) Set of counting numbers between 5 and 6. Empty
- ii) Set of odd numbers between 7 and 11. Not empty
- iii) Set of odd numbers between 7 and 9. Empty
- iv) Set of even numbers that are not divisible by 2. Empty

v)  $\{0\}$  Not empty

- 3. i)  $\{3, 5, 7\}$  and  $\{5, 3, 7\}$ . Equal
- ii)  $\{8, 6, 10, 12\}$  and  $\{3, 2, 4, 6\}$ . Unequal
- iii)  $\{7, 7, 2, 1, 2\}$  and  $\{1, 2, 7\}$ . Equal
- iv)  $\{2, 4, 6, 8, 10\}$  and  $\{a, b, c, d, e, m\}$ . Unequal

- 4. i) Set of Integers. Infinite
- ii)  $\{$  multiple of 5  $\}$ . Infinite
- iii)  $\{$  Fractions between 1 and 2  $\}$ . Infinite
- iv)  $\{$  Number of People in India  $\}$ . Finite
- v) Set of trees in the world. Infinite
- vi) Set of leaves on a tree. Finite

vii) Set of children in all the schools of Delhi. Finite

vii)  $\{ \dots, -4, -3, 0, 3, 6, 8 \}$  Infinite

viii)  $\{ 2, -7, -6, -3, 0, 3, 6, \dots \}$  Infinite

ix) Number of points in a line segment is infinite

v) The number 2 is and also divisible by 2.  
Hence, set  $\{ \text{prime numbers divisible by 2} \}$  is not empty.

vi) The natural numbers start from 1  
Hence, set  $\{ \text{negative natural numbers} \}$  is empty.

vii) There are no women with height 5 metre  
Hence, set  $\{ \text{women with height 5 metre} \}$  is empty.

viii) There are integers less than 5  
Hence, set  $\{ \text{integers less than 5} \}$  is not empty.

ix) There are prime numbers between 7 and 23  
Hence, set  $\{ \text{prime numbers between 7 and 23} \}$  is not empty.

x) Set of even numbers not divisible by 2 is empty

xi) The multiples of 3 that are more than 9 and less than 15 is not empty