

1.

10-D

- (i)  $\{3, 5, 7, \dots\}$  is an infinite set
- (ii)  $\{1, 2, 3, 4\}$  is a finite set
- (iii)  $\{\dots, -3, -2, -1, 0, 1, 2\}$  is an infinite set
- (iv)  $\{20, 30, 40, 50, \dots, 200\}$  is a finite set.

2.

- (i) Set of counting number between 5 and 6 = True
- (ii) Set of odd number between 7 and 19 = False
- (iii) Set of odd number between 7 and 9 = True
- (iv) Set of even number that are not divisible by 2 = True.
- (v)  $\{0\}$  = False

3.

EX-10CD) Math

- i.  $\{3, 5, 7\}$  and  $\{5, 3, 7\}$  = equal set
- ii.  $\{8, 6, 10, 12\}$  and  $\{3, 2, 4, 6\}$  = equivalent set
- iii.  $\{7, 7, 2, 1, 2\}$  and  $\{1, 2, 7\}$  = equal set
- iv.  $\{2, 4, 6, 8, 10\}$  and  $\{a, b, d, e, m\}$  = equivalent set

4.

10-D

- 1. Set of integers = Infinite set
- 2.  $\{ \text{Multiples of } 5 \}$  = Infinite set
- 3.  $\{ \text{Fractions between 1 and 2} \}$  = Infinite set
- 4.  $\{ \text{Number of people in India} \}$  = Finite set
- 5.  $\{ \text{Set of trees in the world} \}$  = Infinite set
- 6. Set of leaves on ~~the~~ a tree = Finite set
- 7. Set of children in all the schools of Delhi = Finite set
- 8.  $\{ \dots, -4, -2, 0, 2, 4, 6, 8 \}$  = Infinite set
- 9.  $\{ 12, -9, -6, -3, 0, 3, 6, \dots \}$  = Infinite set
- 10.  $\{ \text{Number of points in a line segment 4cm long} \}$  = Infinite set

1.

10 C E 7

1.  $A = \{0, 1, 2, 4\} = A = \{0, 1, 2, 4\}$  i.e.,  $n(A) = 4$

2A.  $B = \{-3, -1, 1, 3, 5, 7\}$  i.e.,  $n(B) = 6$

3A.  $C = \{\}$  i.e.,  $n(C) = 0$

4A.  $D = \{3, 2, 2, 1, 3, 1, 2\} \Rightarrow D = \{3, 2, 1\}$  i.e.,  $n(D) = 3$

5A.  $E = \{16, 17, 18, 19\}$  i.e.,  $n(E) = 4$

6A.  $F = \{8, 9, 10, 11, 12, 13, 14\}$  i.e.,  $n(F) = 7$

3.

True or false

1.  $n(\emptyset) = 1 = \text{False}$

2. If  $T = \{a, l, a, h, b, d, h\}$ , then  $n(T) = 5 = \text{True}$

3. If  $B = \{1, 5, 51, 15, 5, 13\}$ , then  $n(B) = 6 = \text{False}$

4. If  $A = \{0\}$ , then  $n(A) = 0$

$\frac{1}{2} \times 100 = 50$   
 $\frac{1}{3} \times 100 = 33.33$

2

1000

1.  $E = 20, 100 + 2 = 2000$  (sum of all)

2.  $E = 2000 - 1000 = 1000$  (in CB)

3.  $E = 2000 - 1000 = 1000$

4.  $E = 2000 - 1000 = 1000$  (in CB)

5.  $E = 2000 - 1000 = 1000$

6.  $E = 2000 - 1000 = 1000$  (in CB)

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