Sets

Excercise 10D

1 State weather the given sets are finite or infinite

i) {3, 5, 7, ...}

Ans Infinite ∞

ii) {1, 2, 3, 4}

Ans Finite

iii) {...., -3, -2, -1, 0, 1, 2}

Ans Infinite

iv) {20, 30, 40, 50, ... 200}

Ans Finite

2. Which of the following is empty

Ans iv) Set of even numbers not divisible by 2

3. State which sets given below are equal and which are equivalent

Ans i) {3, 5, 7} and {5, 3, 7} are equal

iii) {7, 7, 2, 1, 2} and {1, 2, 7} are equal

iv) {2, 4, 6, 8, 10} and {a, b, d, e, m} are equivalent

4. State which of the following are finite and infinte sets:

Finte sets

~~i) {fractions between 1 and 2}~~

iv) {Number of people in India}

~~vi) Set of trees in the world~~

vi) Set of leaves on a tree

vii) Set of children in all schools of Dehli

Infinite sets

i) Set of integers

ii) {Multiples of 5}

i) {fractions between 1 and 2}

v) Set of trees in the world

viii) {...., -4, -2, 0, 2, 4, 6, ...}

ix) {-12, -9, -6, -3, 0, 3, 6, ...}

x) {Number of points in a line segment 4cm long}

Exercise 10E

2. Given: $A = \{$Natural numbers less than 10$\}$
$B = \{$ Letters of the word PUPPET$\}$
$C = \{$Squares of first four whole numbers$\}$
$D = \{$Odd numbers divisibles by 2$\}$

Find:

i) $n(A)$ ii) $n(B)$ iii) $n(C)$ iv) $n(D)$

Ans $n(A) = 9$ $n(B) = 4$ $n(C) = 4$ $n(D) = 0$

3. State true or false for each of the following. Correct the wrong answer

Ans i) True

Ans ii) True

Ans iii) False, $n(B) = 4$

Ans iv) ~~xxx~~ False, $n(\emptyset) = 0$