

EW
14/7/21

Ex-10(E)

Date _____
Page _____

i) $A = \{0, 1, 2, 4\}$

ans) No. of elements of this set = 4

$\therefore 4$ is the cardinal number of this set.

ii) $B = \{-3, -1, 1, 3, 5, 7\}$

ans) No. of elements of this set = 6

$\therefore 6$ is the cardinal number of this set.

iii) $C = \{\}$

ans) No. of elements of this set = 0

$\therefore 0$ is the cardinal number of this set.

iv) $D = \{3, 2, 2, 1, 3, 1, 2\}$

ans) No. of elements of this set = 3

$\therefore 3$ is the cardinal number of this set.

v) $E = \{\text{Natural numbers between 15 and 20}\}$

ans) No. of elements of this set = 4

$\therefore 4$ is the cardinal number of this set.

vi) $F = \{\text{Whole numbers from 8 to 14}\}$

ans) No. of elements of this set = 7

$\therefore 7$ is the cardinal number of this set.

2) i) $n(A)$

ans) Set $A = \{\text{Natural numbers less than 10}\}$
 $= \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

Cardinal no. = 9

$\therefore n(A) = 9$

ii) $n(B)$

ans) Set $B = \{\text{Letters of the word 'PUPPET'}\}$
 $= \{p, u, e, t\}$

Cardinal no. = 4

$\therefore n(B) = 4$

iii) $n(C)$

ans) Set $C = \{\text{Squares of first four whole numbers}\}$
 $= \{0, 1, 4, 9\}$

Cardinal no. = 4

$\therefore n(C) = 4$

iv) $n(D)$

ans) Set $D = \{\text{Odd numbers divisible by 2}\}$
 $= \{\}$

Cardinal no. = 0

$\therefore n(D) = 0$

3/ii) If $A = \{0\}$, then $n(A) = 0$.

ans) False

$n(A) = 1$

(i) $n(\emptyset) = 1$

ans) False

$n(\emptyset) = 0$

(iii) If $T = \{a, a, b, b, d, b\}$; then $n(T) = 5$

ans) True

Because an element cannot be repeated.

(iv) If $B = \{1, 5, 5, 1, 5, 1\}$, then $n(B) = 6$.

ans) False

Because: an element cannot be repeated.