CW 14.7.21

EXERCISE - 10 (E)

(1) Write the cardinal no. of each of the following sets :-

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

ii) $B = \{-3, -1, 1, 3, 5, 7\}$ $\quad n(B) = 6$

iii) $C = \{\}$ $\quad n(C) = 0$

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

Since, $D = \{3, 2, 2, 1, 3, 1, 2\}$
$= \{3, 2, 1\}$

$\therefore n(D) = 3$

v) $E = \{$Natural no.s between 15 and 20$\}$

Since, $E = \{$Natural no.s between 15 and 20$\}$
$= \{16, 17, 18, 19\}$

$\therefore n(E) = 4$

vi) $F = \{$whole no.s from 8 to 14$\}$

Since, $F = \{$whole no.s from 8 to 14$\}$
$= \{8, 9, 10, 11, 12, 13, 14\}$

$\therefore n(F) = 7$

(2) i) $n(A)$

Since, $A = \{\text{Natural no.s less than } 10\}$
$= \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

$\therefore n(A) = 9$

ii) $n(B)$

Since, $B = \{\text{letters of the word 'PUPPET'}\}$
$= \{p, u, e, t\}$

$\therefore n(B) = 4$

iii) $n(C)$

Since, $C = \{\text{Squares of the first four whole no.s}\}$
$= \{0, 1, 4, 9\}$

$\therefore n(C) = 4$

iv) $n(D)$

Since, $D = \{\text{odd no.s divisible by 2}\}$
$= \{\}$

$\therefore n(D) = 0$

(3) State true or false for each of the following. Correct the ~~wrong~~ wrong statement :

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

Correct statement: If $A = \{0\}$, then $n(A) = 1$

ii) $n(\emptyset) = 1$. False

Correct statement: $n(\emptyset) = 0$

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

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

Correct statement: If $B = \{1, 5, 51, 15, 5, 1\}$, then $n(B) = 4$.