Ex-6(c)

1. Find all the subset of each of the following sets:

(i) $A = \{5, 7\}$

Subset of set $A = \{\}, \{5\}, \{7\}, \{5, 7\}$

(ii) $B = \{a, b, c\}$

Subset of set $B = \{\}, \{a\}, \{b\}, \{c\}, \{a, b\}, \{a, c\}, \{b, c\}, \{a, b, c\}$

(iii) $C = \{x : x \in W, x \leq 2\}$

$= \{0, 1, 2\}$

(iv) $\{P : p$ is a letter in the word 'peer'$\}$

$= \{P, O, R\}$

∴ Subsets of the given set $= \phi, \{P\}, \{O\}, \{R\}, \{P, O\}, \{P, R\}, \{O, R\}, \{P, O, R\}$

2. If C is the set of letters in the word "cooler", find:

(i) Set C = $C = \{C, O, L, E, R\}$

(ii) $n(C) = 5$

(iii) Number of its subsets: $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$

(iv) ~~If a set has n elements, the no of its pro~~

(iv) No of its proper subsets $= 2^5 - 1 = 32 - 1 = 31$

3. If $T = \{x : x \text{ is a letter in the word 'TEET'}\}$ find all its subsets.

Ans. $T = \{t, e, h\}$

Subsets of set $= \phi, \{t\}, \{e\}, \{h\}, \{t, e\}, \{t, h\}, \{e, h\}, \{t, e, h\}$