

Exercise 6C

i) $A = \{5, 7\}$
 $= \{\emptyset, \{5, 7\}\}$
• $\{5\}, \{7\}$
• $\{5, 7\}$

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

iii) $C = \{x : x \in \mathbb{W}, x \leq 2\}$
 $= x \leq 2 = \{0, 1, 2\}$
 $= \{0\}, \{1\}, \{2\},$
• $\{\emptyset\}, \{1, 2\}, \{0, 2\},$
• $\{0, 1, 2\}$
• $\{0, 1\}$

iv) $\{p : p \text{ is a letter in the word 'poor'}\}$

$$\{p, o, r\}$$
$$= \{p\}, \{o\}, \{r\},$$

- $\{\}, \{p, o\}, \{o, r\},$
- $\{p, r\}, \{p, o, r\}.$

2) i) Set C

Ans $\{c, o, l, e, n\}$

ii) $n(C)$

Ans $\{c, o, l, e, n\}$

$$n(C) = 5$$

iii) number of its subsets -

Ans $2^n = 2^5 = 32$

Set

104 number of its proper subsets .

Ans $\rightarrow 2^n - 1 = 2^5 - 1 = 32 - 1 = 31$

34 $\{x : x \text{ is a letter in the word 'TEETH'}\}$

$= \{t, e, h\}$ $2^n = 2^3 = 8$

$= \{t\}, \{e\}, \{h\}, \{t, e\}, \{e, h\}, \{t, h\}$

$\{t, e, h\}$