

EXERCISE 10CB

2. (i) ~~$5 \in B = \text{wrong}$~~ $B = \{4, 6, 8, 10, 12, 14\}$

(i) $5 \in B = \text{wrong}$ ($5 \notin B$)

(ii) $12 \in B = \text{correct}$

(iii) $14 \in B = \text{correct}$

(iv) $9 \in B = \text{wrong}$ ($9 \notin B$)

(v) B is the set of even nos. between 2 and 16. = correct

(vi) 4, 6 and 10 are the members of set $B = \text{correct}$

3. (i) Sets $\{4, 9, 6, 2\}$ and $\{6, 2, 4, 9\}$ are not the same. (F)

(ii) Sets $\{0, 1, 3, 9, 4\}$ and $\{4, 0, 1, 3, 9\}$ are the same. (T)

(iii) Sets $\{5, 4\}$ and $\{5, 4, 4, 5\}$ are not the same. (F)

(iv) Sets $\{8, 3\}$ and $\{3, 3, 8\}$ are the same. (T)

(v) Collection of vowels used in the word 'ALLAHABAD' forms a set. (T)

(vi) If P is the set of letters in the word 'ROOP' then $P = \{r, o, p\}$. (T)

(vii) If M is the set of letters used in the word 'MUMBAI' then $M = \{m, u, b, a, i\}$. (T)

EXERCISE 10(c)

4. (i) Set of all natural nos. that can divide 24 completely.

$$RF = \{1, 2, 3, 4, 6, 8, 12, 24\}$$

$$SB = \{x : x \text{ is a natural no. that divides } 24 \text{ completely}\}$$

(ii) Set of odd nos. between 20 and 35

$$RF = \{21, 23, 25, 27, 29, 31, 33\}$$

$$SB = \{x : x \text{ is the odd nos. between } 20 \text{ and } 35\}$$

(iii) Set of letters used in the word 'CALCUTTA'

$$RF = \{\cancel{C}, \cancel{A}, \cancel{L}, \cancel{U}, \cancel{T}\} \{c, a, l, u, t\}$$

$$SB = \{x : x \text{ is the letters in the word 'CALCUTTA'}\}$$

(iv) Set of names of the first five months of the year.

$$RF = \{\text{january, february, march, april, may}\}$$

$$SB = \{x : x \text{ is the first five months of the year}\}$$

(v) Set of all two digit nos. that are perfect squares as well.

$$RF = \{16, 25, 36, 49, 64, 81\}$$

SB = {x: x is the a 2-digit no. that is a perfect square?}

(i) First four odd natural nos. each divisible by five.

$$A = \{5, 15, 25, 35\}$$

(ii) The counting nos. between 15 and 35, each of which is divisible by 6.

$$B = \{18, 24, 30\}$$

(iii) The name of the last 3 days of a week

$$C = \{\text{Thursday, Friday, Saturday}\}$$

$$C = \{ \}$$

(iv) The name of the last four months of a year

$$D = \{\text{September, October, November, December}\}$$