

Ex-10(B)

i) Given

$$\text{Set } A = \{2, 3, 4, 5, 6\}$$

Here element 2 belongs to set A

Hence, the given statement is true

ii) Given

$$\text{Set } A = \{2, 3, 4, 5, 6\}$$

Here, elements 5 and 6 belongs to set A

Hence, the given statement is true

iii) Given

$$\text{Set } A = \{2, 3, 4, 5, 6\}$$

Here, element 7 does not belongs to set A

Hence, the given statement is false

iv) Given

$$\text{Set } A = \{2, 3, 4, 5, 6\}$$

Here, element 8 does not belongs to set A

Hence, the given statement is false

v) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, element 5 does not belongs to set B

Hence, the given statement is false

vi) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, element 12 belongs to set B

Hence, the given statement is true



iii) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, element 14 belongs to set B

Hence, the given statement is true.

iv) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, element 9 does not belong to set B

Hence, the given statement is false.

v) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, B is a set of even nos. between 2 and 16

Hence, the given statement is true.

vi) Given

$$\text{Set } B = \{4, 6, 8, 10, 12, 14\}$$

Here, elements 4, 6 and 10 belong to set B

Hence, the given statement is true.

(3) i) Two sets are said to be equal if they contain same elements.

Here, sets  $\{4, 9, 6, 3\}$  and  $\{6, 2, 4, 9\}$  contain same elements

Hence, both sets are same.

$\therefore$  the given statement is false.



ii) Two sets are said to be equal if they contain same elements.  
 Here, sets  $\{0, 1, 3, 7, 4\}$  and  $\{4, 0, 1, 3, 7\}$   
 Hence, both sets are same.  
 $\therefore$  The given statement is true.

iii) Two sets are said to be equal if they contain same elements.  
 Here, sets are same.  
 $\therefore$  The given statement is false.

iv) Two sets are said to be equal if they contain same elements.  
 Here, sets  $\{9, 3, 3\}$  and  $\{3, 3, 9\}$  contain same elements.  
 Hence, both sets are same.  
 $\therefore$  The given statement is true.

v) Given  
~~the~~ collection of vowels used in the word 'ALLAHABAD' is a well defined collection.

Hence, it form a set.  
 $\therefore$  The given statement is true.

vi) Given  
 A set of letters on the word 'ROOP' is  
 $\{P, O, R\}$   
 $\therefore$  The given statement is true.



vi) Given

A set of letters in the word 'MUMBAI' is

$\{M, U, B, A, I\}$

∴ The given statement is true.

i)  $\{1, 2, 3, 4, 5\}$  is a set of first five counting no.s

ii) {Right angle, acute angle, obtuse angle} is a set of three types of angles.

iii) {Right triangle, acute triangle, obtuse triangle} is a set of three types of triangles.

iv) {Write the name of your family members} is a set of the members of your family.

v)  $\{b, c, d, f, g, h\}$  is a set of first six consonants of the English Alphabet.

vi)  $\{a, e, i, o\}$  is a set of four vowels of the English Alphabet.

vii)  $\{Narendra\ modi, Dr\ manmohan\ Singh, A.B\ Vajpayee\}$  is a set of three prime ministers of India.



(5) a) i) The members  $\{3, 8, 5, 15, 12, 7\}$  are 3, 8, 5, 15, 12 and 7

ii) The members of set  $\{C, m, n, o, s\}$  are C, m, n, o and s

b) i) The set of elements 2, 4, 8, 16, 64 and 128 are  $\{2, 8, 4, 16, 64, 128\}$

ii) The set of elements 3, 5, 15, 45, 75 and 90 are  $\{3, 5, 15, 45, 75, 90\}$

(6) i)  $\{B, H, O, P, A, L\}$  is the set of letters used in the word 'BHOPAL'

ii)  $\{A, E\}$  is the set of vowels used in the word 'Bengal'

iii)  $\{H, N, G, K\}$  is the set of consonants used in the word 'HONG KONG'