

(b) (i) The set of elements 2, 4, 8, 16, 64 and 128 are  $(2, 4, 8, 16, 24, 128)$

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

(c) (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'.

(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 former  
Ministers of India

(i) (a) The members of set (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

A set of letters in the word 'ROOP' is

$\{P, O, R\}$

$\therefore$  The given statement is true.

(vii) A set of letters in the word 'MUMBAI' is

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

$\therefore$  The given statement is true.

(4) (i)  $\{1, 2, 3, 4, 5\}$  is a set of first five consecutive numbers.

(ii)  $\{\text{right angle, acute angle, obtuse angle}\}$

is a set of three types of angles.

(iii)  $\{\text{right triangle, acute triangle,}$

obtuse triangle is a set of three types of triangles.

(ii) Two sets are said to be equal if they contain same elements

Hence, sets  $(0, 1, 3, 9, 4)$  and  $(4, 0, 1, 3, 9)$  contain same elements

Hence, both sets are same

∴ The given statement is true

(iii) Here, sets  $(5, 4)$  and  $(5, 4, 4, 5)$  contain same elements

~~Here, sets~~ Hence, both sets are same

∴ The given statement is true

(v) Collection of vowels used in the word

'ALHABAD' is a well defined collection

Hence, it is from a set

∴ The given statement is true

(v) Set B = {4, 6, 8, 10, 12, 14}

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

Hence, the given statement is true

(vi) Set B = {4, 6, 8, 10, 12, 14}

Here, elements 4, 6 and 10 belongs to set B  
Hence, the given statement is true

(3) The sets are said to be equal if they contain same elements

Here, sets {4, 9, 6, 2} and {6, 2, 4, 9} contain

same elements

Hence, both sets are same

∴ The given statement is false

Here, element 8 does not belongs to set A

Hence, the given statement is false

(i) Set B = {4, 6, 8, 10, 12, 14}

Here, element 5 does not belongs to set B

Hence, the given statement is false

(ii) Set B = {4, 6, 8, 10, 12, 14}

Here, element 12 belongs to set B

Hence, the given statement is true

(iii) Set B = {4, 6, 8, 10, 12, 14}

Here, element 14 belongs to set B

Hence, the given statement is true

(iv) Set B = {4, 6, 8, 10, 12, 14}

Here, element 9 does not belongs to set B

Hence, the given statement is false

Ex 10(B)

(1)  $2 \in A$

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

Here, element 2 belongs to set A

Hence, the given statement is true

(2)  $5, 6 \in A$

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

Here, element 5 and 6 belongs to set A

Hence, the given statement is true

(3)  $3, 4, 7 \in A$

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

Here, element 7 does not belong to set A

Hence, the given statement is false

(4)  $2, 8 \in A$

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