

Ex 10(B)

i) If set $A = \{2, 3, 4, 5, 6\}$, state which of the following statements are true and which are false:

- i) $2 \in A = \text{True}$
- ii) $5, 6 \in A = \text{False True}$
- iii) $3, 4, 7 \in A = \text{False}$
- iv) $2, 8 \in A = \text{False}$

2) If set $B = \{4, 6, 8, 10, 12, 14\}$, state which of the following statements are correct and which are wrong:

- i) $5 \in B = \text{Wrong (correct - } 6 \in B)$
- ii) $12 \in B = \text{correct}$
- iii) $14 \in B = \text{correct}$
- iv) $9 \in B = \text{wrong (correct - } 10 \in B)$
- v) B is the set of even numbers between 2 and 16 - correct

vi) ~~ix~~ 4, 6 and 10 are the members of the set B . Correct

3) True or false:

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

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

iii) sets $\{5, 4\}$ and $\{5, 4, 4, 5\}$ are not the same. False.

iv) sets $\{8, 3\}$ and $\{3, 3, 8\}$ are the same. True

v) collection of vowels used in the word 'ALLAHABAD' forms a set. True

vi) if P is the set of letters in the word 'ROOP' then $P = \{p, o, r\}$. True

vii) if M is the set of letters used in the word 'MUMBAI', then $M = \{m, u, b, a, i\}$. True

4) write the set containing:
the

i) the first five counting numbers.

Ans - $\{1, 2, 3, 4, 5\}$

ii) the three types of angle.

Ans - $\{\text{Right-angle, acute-angle, obtuse-angle}\}$

iii) the three types of triangles.

Ans - $\{\text{iso scalene-triangle, isosceles-triangle, equilateral triangle}\}$

iv) the members of your family.

Ans - $\{\text{Aditya Asutosh Sahu, Sudhir Kumar Sahu, Anima Sahu, Kuntale Kumari Sahu, Chaturapani Sahu}\}$

v) The first six consonants of the English alphabet.

Ans. $\{b, c, d, f, g, h\}$

vi) The first four vowels of the English alphabet.

Ans. $\{a, e, i, o\}$

vii) The names of any three prime ministers of India.

Ans. $\{Indira Gandhi, Atal Bihari Vajpayee, Dr. Manmohan Singh\}$

5) a) Write the members (elements) of each set given below:

i) $\{3, 8, 5, 15, 12, 7\}$

Ans. 3, 8, 5, 15, 12 and 7

ii) $\{c, m, n, o, s\}$

Ans. c, m, n, o, s

6) b) Write sets whose elements are:

i) 2, 4, 8, 16, 64 and 128

Ans. $\{2, 4, 8, 16, 64, 128\}$

ii) 3, 5, 15, 45, 75 and 90

Ans. $\{3, 5, 15, 45, 75, 90\}$

6) i) Write the set of letters used in the word 'BHOPAL':

Ans. $\{b, h, o, p, a, l\}$

ii) write the set of vowels used in the word 'BENGAL'.

Ans. { e, n, g, a, l }

iii) write the set of consonants used in the word 'HONG-KONG'.

Ans. { h, k, n, g }