

Ex-10 (B)

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

- i) $2 \in A$ True
- ii) $5, 6 \in A$ True
- iii) $3, 4, 7 \in A$ false
- iv) $2, 8 \in A$ false .

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

- i) $5 \in B$ wrong $5 \notin B$
- ii) $12 \in B$ Correct
- iii) $14 \in B$ Correct
- iv) $9 \in B$ wrong . $9 \notin B$
- v) B is the set of even numbers between 2 and 16. correct .
- vi) 4, 6, and 10 are the numbers of the Set B . Correct

3. State whether 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:

- i) the first five counting numbers — $\{1, 2, 3, 4, 5\}$
- ii) the three types of angles — $\{\text{acute, obtuse, right angle}\}$
- iii) the three types of triangles — $\{\text{scalene, isosceles, equilateral triangle}\}$
- iv) the members of your family — $\{\text{Subasish, Subhaxmi, Sonakshi}\}$
- v) the first six consonants of the English alphabet — $\{b, c, d, f, g, h\}$

vi) the first four vowels of the English alphabet.
— { a, e, i, o }

vii) the names of any three Prime Ministers of India — { Atal Bihari Vajpayee, Dr. Manmohan Singh, Narendra Modi }

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

(i) { 3, 8, 5, 15, 12, 7 } — 3, 8, 5, 15, 12, 7

(ii) { c, m, n, o, s } — c, m, n, o, s

(b) Write the sets whose elements are :

(i) 2, 4, 8, 16 and 128 — { 2, 4, 8, 16, 128 }

(ii) 3, 5, 15, 45, 75 and 90 — { 3, 5, 15, 45, 75, 90 }

6. (i) Write the set of letters used in the word 'BHOPAL' — { B, H, O, P, A, L }

(ii) Write the set of vowels used in the word 'BENGAL' — { E, A }

(iii) Write the set of consonants used in the word 'HONG-KONG' — { H, N, G, K }

