

H.W
29/1/21

Ch-10

Sets

Ex-10(B)

Date _____
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2. If set $B = \{4, 6, 8, 10, 12, 14\}$. State, which of the following statements, is correct and which is wrong?

(i) $5 \in B =$ Wrong

(ii) $12 \in B =$ Correct

(iii) $14 \in B =$ Correct

(iv) $9 \in B =$ Wrong

(v) B is a set of even numbers between 2 and 16.

Ans - True (Correct)

(vi) 4, 6, 10 are the members of the set.

Ans - True (Correct)

(QB) 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 4 vowels used in the word 'ALLAHABAD' forms a set. True

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

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

Ex-10(c)

Q4) Write each of the following sets in Roster (tabular) form and also in Set-Builder form.

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

Roster form: $\{1, 2, 3, 4, 6, 8, 12, 24\}$

Set-Builder form: $\{x : x \text{ is a natural number which divides } 24 \text{ completely}\}$

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

Roster form: $\{21, 23, 25, 27, 29, 31, 33\}$

Set-Builder form: $\{x : x \text{ is an odd number between } 20 \text{ and } 35\}$

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

Roster form: $\{c, a, l, u, t\}$

Set-Builder form: $\{x : x \text{ is a letter used in the word 'CALCUTTA'}\}$

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

Roster form: $\{\text{January, February, March, April, May}\}$

Set-Builder form: $\{x : x \text{ is name of first five months in a year}\}$

(v) Set of all two digit numbers that are perfect square as well.

Roster form: $\{16, 25, 36, 49, 64, 81\}$

Set-Builder form: $\{x : x \text{ is a perfect square two-digit number}\}$

Q 5 - Write, in Roster Form, the set of:

(i) The first four odd natural numbers each divisible by 5.

Ans - {5, 15, 25, 35}

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

Ans. { 18, 24, 30 }

(iii) the names of the last three days of a week.

Ans - { Friday, Saturday, Sunday }

(iv) the names of the last four months of a year.

Ans - { September, October, November, December }