

Ex 10(C)

1. (i) The set of first five numbers each of which is divisible by 3 in Roster form is $\{3, 6, 9, 12, 15\}$
- (ii) The set of integers between -4 and 4 in Roster form is $\{-3, -2, -1, 0, 1, 2, 3\}$
- (iii) The Roster form for a set $\{x : x \text{ is a letter in the word 'SCHOOL'}\}$ is $\{S, C, H, O, L\}$
- (iv) $\{11, 13, 15, 17, 19\}$ is the Roster form of a for a set $\{x : x \text{ is an odd natural number between 10 and 20}\}$
- (v) $\{A, E, I\}$ is the Roster form for a set $\{ \text{Vowels used in the word 'AMERICA'} \}$

2. (i) $\{2, 3, 5, 7, 11, 13, 17, 19\}$ is the Roster form for all prime numbers between one and twenty.

(ii) $\{1, 4, 9, 16\}$ is the Roster form for the square of first four natural numbers.

(iii) $\{2, 4, 6, 8\}$ is the Roster form for even number between 1 and 9.

(iv) $\{A, B, C, D, E, F, G, H\}$ is the Roster form for first eight letters of the English alphabet.

(v) $\{B, A, S, K, E, T\}$ is the Roster form for the letters of the word BASKET.

3. (i) $\{x: x \text{ is an even natural number less than } 12\}$ is the set builder form for $\{2, 4, 6, 8, 10\}$
- (ii) $\{x: x \text{ is a prime number less than } 12\}$ is the set builder form for $\{2, 3, 5, 7, 11\}$
- (iii) $\{x: x \text{ is a month of the year whose name starts with letter } J\}$ is the set builder form for $\{\text{January, July, June}\}$
- (iv) $\{x: x \text{ is a day of the week whose name starts with letter } T\}$ is the set builder form for $\{\text{Tuesday, Thursday}\}$

4. (i) The Roster form is $\{1, 2, 3, 4, 6, 8, 12, 24\}$
The set-builder form is $\{x: x \text{ is a natural number which divides } 24 \text{ completely}\}$

(ii) The Roster form is $\{21, 23, 25, 27, 29, 31, 33\}$
The Set Builder form is $\{x: x \text{ is an odd number between } 20 \text{ and } 35\}$

(iii) The Roster form is $\{C, A, L, U, T, T, A\}$
The Set Builder form is $\{x: x \text{ is a letter used in the word 'CALCUTTA'}\}$

(iv) The Roster form is $\{\text{January, February, March, April, May}\}$

The Set builder form is $\{x : x \text{ is a name of the first five months of a year}\}$

(v) The Roster Form is $\{16, 25, 36, 49, 64, 81\}$
The Set Builder is $\{x : x \text{ is a perfect square of two digit numbers}\}$

5. (i) $\{5, 15, 25, 35\}$

(ii) $\{18, 24, 30\}$

(iii) $\{\text{Friday, Saturday, Sunday}\}$

(iv) $\{\text{September, October, November, December}\}$