Ex. 10(C)

1. Write each of the following sets in a Roster form:

i) The set of five numbers each of which is divisible by 3.

ans- $\{3, 6, 9, 12, 15\}$

ii) The set of integers between -4 and 4.

ans- $\{-3, -2, -1, 0, 1, 2, 3\}$

iii) $\{x : x$ is a letter in the word 'School'$\}$

ans- $\{S, c, h, o, l\}$

iv) $\{x : x$ is an odd natural number between 10 and 20.

ans- $\{11, 13, 15, 17, 19\}$

v) {Vowels used in the word 'AMERICA'}

ans- $\{a, e, i\}$

vi) {Consonants used in the word 'MADRAS'}

ans- $\{M, d, r, s\}$

2. Write each given set in the 'Roster Form':

i) All prime numbers between 1 and 20.

ans- $\{2, 3, 5, 7, 11, 13, 17, 19\}$

ii) The squares of the first four natural numbers.

ans- $\{1, 4, 9, 16\}$

iii) Even numbers between 1 and 9.

ans- $\{2, 4, 6, 8\}$

iv) The first eight letters of the english alphabet.
ans- { a, b, c, d, e, f, g, h }

v) The letters of the word 'BASKET'.
ans { B, a, s, k, e, t }

vi) Four cities of India whose names starts with the letter J
ans { Jodhpur, Jalandhar, jaipur, Jhansi }

vii) Any four closed geometrical figures.
ans- { Triangle, Square, rectangle, hexagone }

viii) Vowels used in the word 'MONDAY'.
ans- { O, A }

ix) Single digit numbers that are perfect squares as well.
ans { 0, 1, 4, 9 }

3. Write each given set in the set-builder form.
i) { 2, 4, 6, 8, 10, }
ans- { x : x is a even number between 1 to 12 }

ii) { 2, 3, 5, 7, 11 }
ans- { x | x is a prime number less than 12 }

iii) { January, June, July }
ans- { x : x is a month name that's starts with the letter J. }

iv) { a, e, i, o, u }
ans- { x : x is a vowel from English Alphabet }

v) { Tuesday, Thursday }
ans- { x : x is a day in a week whose name starts with the letter T }

vi) { 1, 4, 9, 16, 25 }
ans- { x : x is a perfect square of the first 5 numbers }

vii) { 5, 10, 15, 20, 25, 30 }
ans { x : x is a multiple of 5 }

4. Write each of the following sets in Roster Form and also in Set-builder Form:

i) Set of all natural numbers that can divide 24 completely.
ans= { 1, 2, 3, 4, 6, 8, 12, 24 }
= { x : x is a natural number that divides 24 completely }.

ii) Set of odd numbers between 20 and 35.
ans= { 21, 23, 25, 27, 29, 31, 33 }
= { x : x is a odd number between 20 and 35 }

iii) Set of all letters used in the word 'Calcutta'.
ans = { c, a, l, u, t }
= { x : x is a letter used in the word 'Calcutta' }

iv) Set of names of the first five months of a year.
ans= { January, February, March, April, May }
= { x : x is a name of the first five months of a year }

v) Set of all two-digit number that are perfect squares as well.
ans= { 16, 25, 36, 49, 64, 81 }
= { x : x is a two-digit number that are perfect squares as well }

5. Write, in the Rosten 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 }