Exercise 1.1

1. **Which of the following are sets?**

(i) The Collection of prime numbers upto 100.

(ii) The Collection of rich people in India.

(iii) The Collection of all rivers in India.

(iv) The Collection of good Hockey players.

2.**List the set of letters of the following words in Roster form.**
(i) INDIA

(ii) PARALLELOGRAM

(iii) MISSISSIPPI

(iv) CZECHOSLOVAKIA

3.**Consider the following sets A = {0, 3, 5, 8} B = {2, 4, 6, 10}**
C = {12, 14, 18, 20}

(a) State whether True or false.

(i) $18 \in C$ (ii) $6 \notin A$ (iii) $14 \notin C$ (iv) $10 \in B$

(v) $5 \in B$ (vi) $0 \in B$

(b) Fill in the blanks?

(i) $3 \in$ _____ (ii) $14 \in$ _____ (iii) 18 _____ B (iv) 4 _____ B

4.Represent the following sets in Roster form.

(i) A = The set of all even natural numbers less than 20.

(ii) B = {$y : y = 1/2n$, $n \in$ N $\cdot$, $n \le 5$}

(iii) C = {$x : x$ is perfect cube, $27 < x < 216$}

(iv) D = {$x : x \in$ Z, $-5 < x \le 2$}

5.Represent the following sets in set builder form.
(i) B = The set of all Cricket players in India who scored double centuries in One Day Internationals.

(ii) C = {$1/2$, $2/3$, $3/4$ ..... }.

(iii) D = The set of all tamil months in a year.

(iv) E = The set of odd Whole numbers less than 9.

6.Represent the following sets in descriptive form.
(i) P = { January, June, July}

(ii) Q = {7,11,13,17,19,23,29}

(iii) R = {$x : x \in$ N, $x < 5$}

(iv) S = {$x : x$ is a consonant in English alphabets}