**Practical No.1**

**def union(a,b):**

**ans=a.copy()**

**for i in b:**

**if i not in a:**

**ans.append(i)**

**return ans**

**def minus(a,b):**

**ans=a.copy()**

**for i in b:**

**if i not in a:**

**if i not in b:**

**ans.append(i)**

**return ans**

**def intersection(a,b):**

**ans=a.copy()**

**for i in b:**

**if i not in a:**

**ans.append(i)**

**return ans**

**u=input("enter the union list : ").split(",")**

**b=input("enter the badminton list : ").split(",")**

**c=input("enter the cricket list : ").split(",")**

**f=input("enter the football list : ").split(",")**

**print("list of student who play both cricket and badminton: ",intersection(b,c))**

**print("list of student who plays either cricket or badminton but not both:",union(minus(c,intersection(b,c)),minus(b,intersection(b,c))))**

**print("Number of student who play neither cricket nor badminton:",minus(minus(u,b),c))**

**print("Number of student who plays cricket and football but not badminton",minus(intersection(c,f),b))**