# **Assignment 23**

**Write a program in PROLOG to implement merge (L1, L2, L3) where L1 is first ordered list and L2 is second ordered list and L3 represents the merged list.**

start:-write('Sorted Merging of Lists\n'),

write('Enter a list: '),

read(L1),

msort(L1,SL1),

write('Sorted List: '),

write(SL1),nl,

write('Enter a list: '),

read(L2),

msort(L2,SL2),

write('Sorted List: '),

write(SL2),nl,

merge(SL1,SL2,L3),

write('List after Merging: '),

write(L3).

merge([],L2,L2):-!.

merge(L1,[],L1):-!.

merge([H1|T1],[H2|T2],[H1|T3]):- H1=<H2,merge(T1, [H2|T2], T3).

merge([H1|T1],[H2|T2],[H2|T3]):- merge([H1|T1], T2, T3).

**Output**

