

**ARTIFICIAL
INTELLIGENCE
PRACTICAL
FILE :-**

SUBMITTED BY :-

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**S/W LAB BASED ON ARTIFICIAL
INTELLIGENCE**

SEMESTER : 6TH

Q1 -

Q14 → Write a Prolog program to implement a `sumlist(L,S)` so that `S` is the sum of given list `L`?

Ans → `sumlist([],0).`
`sumlist([H|T],S):-`
`sumlist(T,S1),`
`S is H+S1.`

SWI-Prolog (AMD64, Multi-threaded, version 8.2.3)

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`?- ['sumlist.pl'].`

true.

`?- sumlist([1,2,3,4,5,6,7,8,9,10],S).`

`S = 55.`

`?- |`

Q2 -

Q22 → Write a program in Prolog to implement `delete_all(X, L, R)`
Where X denotes the element whose all occurrences have to be deleted from list L to obtain list R?

Ans → `delete_all(X, [], []).`
`delete_all(X, [_:T], R) :-`
`delete_all(X, T, R).`
`delete_all(X, [_:H:T], [_:H:R]) :-`
`delete_all(X, T, R).`

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`?- [delall.pl].`

true.

`?- delete_all(9, [1, 9, 2, 9, 3, 9, 4, 9, 5, 9, 6, 9, 7, 9, 8, 9], R).`

`R = [1, 2, 3, 4, 5, 6, 7, 8] |`