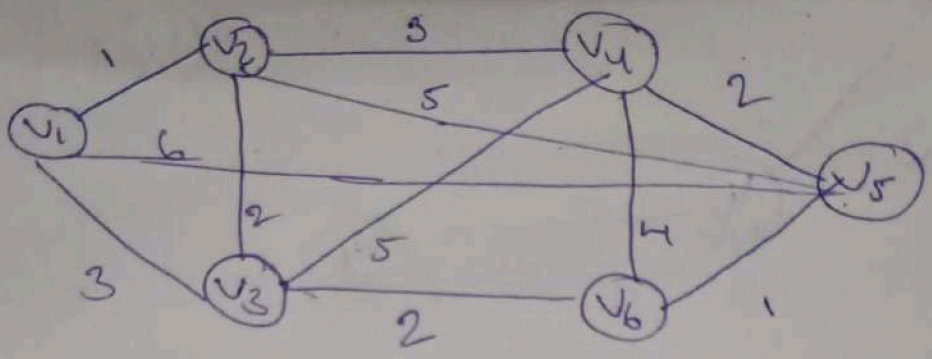
CO-2

ALM

(1) Construct Minimal spanning trees for given graph find optimal solutions using Krushkal's Algorithm?



Ans:- By using Krushkal's Algorithm.

~~Step 1:-~~

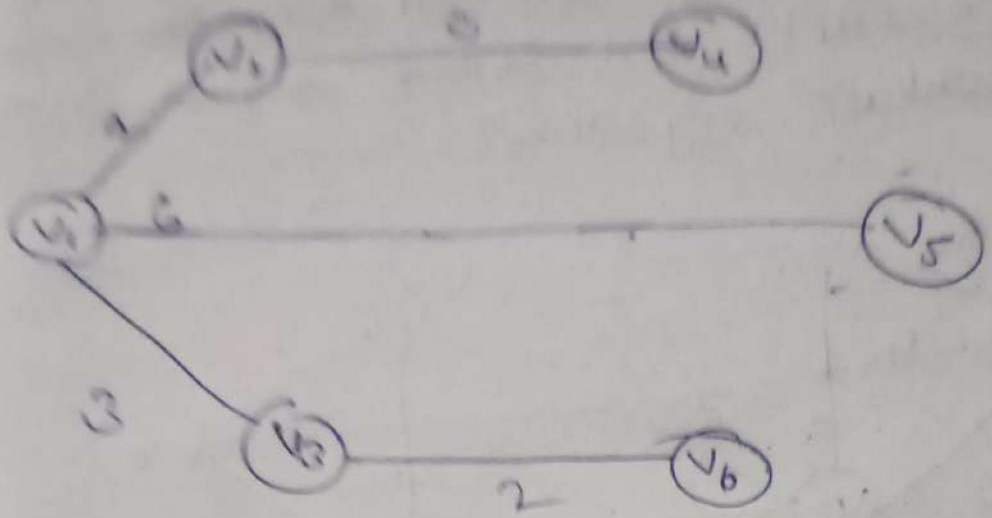
~~$V_1 - V_2 \rightarrow 1$~~ ✓

~~$V_1 - V_3 \rightarrow 3$~~

Step-2:- write weights:-

(V_1, V_2) ✓	(V_1, V_3) ✓	(V_1, V_5) ✓	(V_2, V_4) ✓	(V_2, V_5) ✗
1	3	6	3	5
✗				
(V_2, V_3)	(V_3, V_4) ✗	(V_3, V_6) ✓	(V_4, V_5) ✗	(V_4, V_6) ✗
2	5	2	2	4
✗				
(V_6, V_5)				
1				

Finally



the optimal solution is

$= 1+3+6+3+2$

$= 15$