Kruskal's Algorithm: The edges in sorted order are shown below: Initially, each node is in its own set, i.e., $L(i) = \{i\}$. When we add edge 1−3, the lists $L(1)$ and $L(3)$ are merged, so we get $L(1) = L(3) = \{1, 3\}$. To show the computation, we just indicate the merged list that occurs after adding a new edge. We write "X" if the considered edge is not added.

rank	edge	weight	merged list
1	1-3:	1	$\{1, 3\}$
2	6-11:	1	$\{6, 11\}$
3	10-11:	1	$\{6, 10, 11\}$
4	6-10:	2	X
5	7-11:	2	
6	11-12:	2	
7	1-2:	3	
8	3-8:	3	
9	6-7:	3	
10	7-10:	3	
11	2-5:	6	
12	3-4:	6	
13	5-7:	6	
14	5-12:	6	
15	9-10:	6	
16	1-4:	7	
17	4-6:	7	
18	8-9:	8	
19	4-5:	10	
20	4-9:	11	