

B2.1

Adjacency Matrix:

	1	2	3	4	5	6	7
1	-	1	1	1	1	0	0
2	1	-	0	0	0	1	1
3	1	0	-	0	0	0	1
4	1	0	0	-	0	0	1
5	1	0	0	0	-	1	0
6	0	1	0	0	1	-	0
7	0	1	1	1	0	0	-

Adjacency Linked Lists:

1	2	3	4	5	
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2	1	6	7	
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3	1	7	
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4	1	7	
---	---	---	--

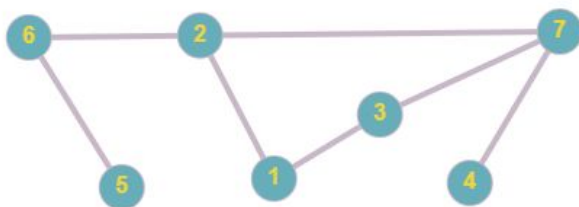
5	1	6	
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6	2	5	
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7	2	3	4	
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B2.2

DFS Tree:

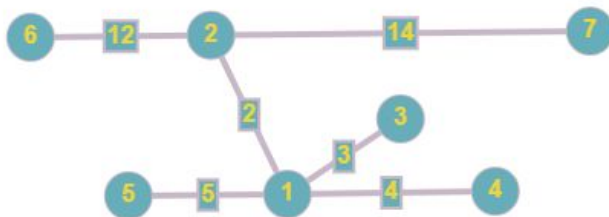


Traversal Stack:

ON	OFF	
4	1	last
3	2	
7	7	
5	4	
6	3	
2	6	
1	5	first

B2.3

Minimum Spanning Tree using Kruskal's Algorithm:



Edges are added smallest first such that the next edge added does not create a cycle. In this example, the edges are added {1,2}, {1,3}, {1,4}, {1,5}, {2,6}, {2,7}. Total weight = 40.