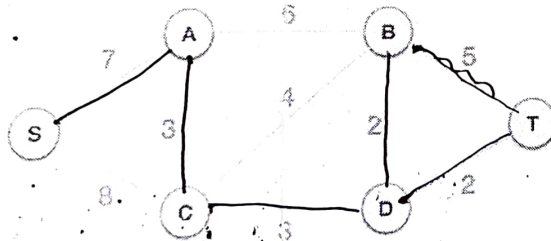*Answer all the questions*

Q1. Find the list of maximum activities to be performed using the greedy approach for the following activity table

Activity	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Start	9	2	3	4	7	8	12	1	9	11
Finish	11	5	4	7	10	9	14	3	13	12

Q2. Find the maximum profit where N = 5, Profit[] = {2, 7, 1, 5, 3}, Cost[] = {2, 5, 2, 3, 4}, maximum weight be to picked = $\frac{1}{Cost}$
1 and maximum number of items to be picked = 2 using bounded Knapsack problem.

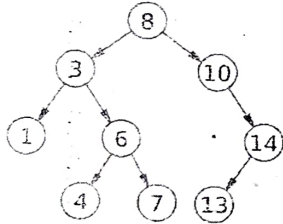Q3. Find the minimum spanning tree (MST) for the following graph using Kruskal's algorithm.

ends.

Answer all the questions

Q1. Create an AVL tree using the data: 40, 60, 80, 90, 70, 75 and 85.

Q2. Create a Red-Black Tree using data: 20, 15, 30, 17 and 16.

Q.3 Draw the tree after deleting the node 3 from the following BST.

Class Test (3) on CSE 2213

14th Batch, Dept of CSE, BAUET
Time: 30 min, Full Marks: 20 (8+8+4)
Based on CO3

Answer all the questions
1. Create a splay tree using the data: 50, 40, 60 and 20. Draw the splay tree after each insertion.
2. Create a perfect skip list using the nodes: 22, 11, 78, 89, 53, 64, 42, 45
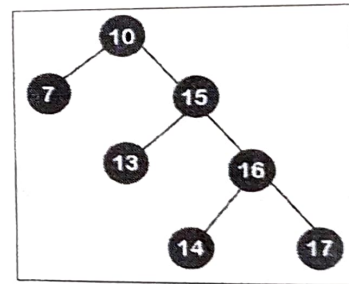Q3. Draw the splay tree after the deleting the node 10 from the following tree figure A:

Figure A

Answer all the questions
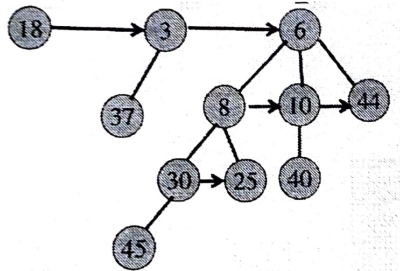
Q1. In the following Binomial Heap Delete node 6 and adjust the heap.

Q2. Let a set S[]={2,7,8,9,10}. Draw the state space tree of S for the first solution to obtain the sum of subset equal to 17 using backtracking.