

**Question 3**

Not yet answered Marked out of 25.00

Using Minimum Edit Distance  
Replace this into that

	0	1	2	3	4
0	t	h	a	t	
1	t	h	2	2	3
2	h	2	1	0	1
3	i	3	2	1	2
4	s	4	3	2	2

Using the given graph solve using Dijkstra for the values in the table starting vertex is 0.

no spaces ex. 0,1( means from vertex 0- 1-2)	Vertex	Cost	Path of V
	0	0	0
	1	6	0,2,1
	2	5	0,2
	3	8	0,2,1,3
	4	14	0,2,6,4
	5	8	0,2,5
	6	12	0,2,6

**Question 4**

Not yet answered Marked out of 5.00

Using Kruskals solve for the weight of the min spanning tree.

Answer: **16**"

Not yet answered Marked out of 5.00

Using Prims solve for the weight of the min spanning tree starting vertex is 0

Answer: **21**"

**Question 7**

Not yet answered Marked out of 13.00

Solve for the Longest Increasing sub-sequence

Array	10	8	1	6	2	7	11	12
Index	0	1	2	3	4	5	6	7

Length	1	1	1	2	2	3	4	5
Seq				2	2	4	5	6
Index	0	1	2	3	4	5	6	7

Problem: Shortest Path Between Cities

Suppose you have the following graph representing the road network between six cities: A, B, C, D, E, and F.

Graph:

The numbers on the edges represent the distances (weights) between the connected cities. Your task is to find the shortest path from City A to City F using Dijkstra's algorithm. Identify the shortest path from City A to City F.

Shortest Path: **A, B, C, F**"

**Question 6**

Not yet answered Marked out of 11.00

Solve for the missing statements

```

for(i=0;i<str1.len +1;i++){
    for(j=0;j<str2.len +1;j++){
        if(i==0 && j==0)
            [5]
        elseif(i==0)
            [2] = [4]
        elseif(j==0)
            [2] = [1]
        else{
            if(str1[i-1]==str2[j-1])
                [2] = [6]
            else
                [2] = 1 + min([7],[3],[6]);
            //insert remove replace
        }
    }
}
i=0;
j=0;
str1=cat;
str2=cut;
[1] [2] [3] [4] [5] [6] [7]

```

**Question 1**

Not yet answered Marked out of 1.00

In the coin change problem, You are given an array coins representing different coin denominations and an integer amount representing a total amount of money. What is the number of combinations that make up that amount. You have an infinite number of each coin denomination.

coins = [1, 2, 5]  
amount = 5

There are **4** ways to make up the amount 5:

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**Question 5**

Not yet answered Marked out of 5.00

Suppose you have the following activities with their respective start and end times:  
Solve using the Activity selection problem.

Activity A: (4:30 PM, 6:30 PM)  
Activity B: (2:00 PM, 4:00 PM)  
Activity C: (6:00 PM, 8:00 PM)  
Activity D: (1:00 PM, 2:30 PM)  
Activity E: (7:30 PM, 9:30 PM)  
Activity F: (9:00 PM, 11:00 PM)  
Activity G: (3:30 PM, 5:30 PM)  
Activity H: (10:00 PM, 12:00 AM)  
Activity I: (5:00 PM, 7:00 PM)  
Activity J: (8:00 PM, 10:00 PM)

The Activity selected are: **D, G, C, J, H** ex. A,B,C etc.

**Question 9**

Not yet answered Marked out of 5.00

Solve using Job Sequencing

You have the following jobs with their respective deadlines and profits:

Job A: Deadline = 3, Profit = 70  
Job B: Deadline = 1, Profit = 80  
Job C: Deadline = 2, Profit = 30  
Job D: Deadline = 2, Profit = 100  
Job E: Deadline = 1, Profit = 40

Total Profit: **250**