DAA PRACTICAL EXAMINATION 2021

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SEMESTER- 4TH

Solution 1.

```
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Exit.
```

```
Enter number to be searched.
s 4

4  color : black  Press any key to continue . . . _

s
n
```

```
Enter number to be searched.
9

Number is not present.Press any key to continue . . .


n
```

Solution 2.

```
***************KRUSKAL'S ALGORITHM****************
Enter the no. of vertices in the graph:4

Enter the weights of the following:
edge 1 , 2 :10
edge 1 , 3 :20
edge 1 , 4 :40
edge 2 , 3 :30
edge 2 , 4 :90
edge 3 , 4 :50


The edges in the given graph are::
 < 1 , 2 > 10
 < 1 , 3 > 20
 < 1 , 4 > 40
 < 2 , 3 > 30
 < 2 , 4 > 90
 < 3 , 4 > 50


After sorting the edges in the given graph are::
1 , 2 > ::10
1 , 3 > ::20
2 , 3 > ::30
1 , 4 > ::40
3 , 4 > ::50
2 , 4 > ::90

********* THE MINIMUM SPANNING TREE IS**************
 The edge included in MST is :: < 1 , 2 >

 The edge included in MST is :: < 1 , 3 >
Edge  < 2 , 3 > is not included as it forms a cycle


 The edge included in MST is :: < 1 , 4 >
Edge  < 3 , 4 > is not included as it forms a cycle

Edge  < 2 , 4 > is not included as it forms a cycle
```

Solution 3.

```
Enter your choice.
1.Bubble Sort.
2.Insertion Sort.
3.Selection Sort.
4.Quick Sort.
5.Merge Sort
6.Exit.
1_
```

```
                A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
After Selection Sort
 Sorted A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
Press any key to continue . . . _
```

```
                A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
After Merge Sort
 Sorted A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
Press any key to continue . . . _
```

```
                    A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
After Quick Sort
 Sorted A: [2, 3, 4, 5, 6, 7, 9, 10, 11]

Press any key to continue . . .
```

```
                    A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
After insertion Sort
Sorted A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
Press any key to continue . . . _
```

```
                    A: [3, 7, 9, 10, 6, 5, 12, 4, 11, 2]
After Bubble Sort
 Sorted A: [2, 3, 4, 5, 6, 7, 9, 10, 11, 12]
Press any key to continue . . .
```