

# **DAA PRACTICAL EXAMINATION 2021**

NAME - KARUNESH PATHAK

COURSE - BSc (H) Computer Science

UNIVERSITY ROLL NO. - 19020570020

COLLEGE ROLL NO. - 2019/1419

SEMESTER- 4<sup>TH</sup>

## Solution 1.

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

```
Enter number to be searched.
```

```
4
```

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

```
Enter number to be searched.
```

```
9
```

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

## 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