



Ramanujan College

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4th Semester

B.Sc. (Hons.) Computer Science

DAA Practical Examination

Output 1:

```
Enter your choice.  
1.Insertion.  
2.Deletion.  
3.Search a number.  
4.Display its preorder and inorder transversals.  
5.Exit.
```

```
Enter the number to be inserted in tree.  
4
```

```
Enter number to be deleted.  
4  
Press any key to continue . . . ■
```

```
Enter number to be searched.  
4  
4 color : blackPress any key to continue . . . ■
```

Output 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 :40
edge 1 , 4 :20
edge 2 , 3 :60
edge 2 , 4 :30
edge 3 , 4 :70

The edges in the given graph are::
< 1 , 2 > 10
< 1 , 3 > 40
< 1 , 4 > 20
< 2 , 3 > 60
< 2 , 4 > 30
< 3 , 4 > 70

After sorting the edges in the given graph are::
1 , 2 > ::10
1 , 4 > ::20
2 , 4 > ::30
1 , 3 > ::40
2 , 3 > ::60
3 , 4 > ::70

***** THE MINIMUM SPANNING TREE IS*****The edge included in MST is :: < 1 , 2 >
The edge included in MST is :: < 1 , 4 >
Edge < 2 , 4 > is not included as it forms a cycle

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

Edge < 3 , 4 > is not included as it forms a cycle

-----
Process exited after 10.67 seconds with return value 0
Press any key to continue . . .
```

Output 3:

3A - Bubble Sort

```
Enter the no of elements in array: 4
```

```
*****MENU*****
```

```
1.Worst Case
```

```
2.Best Case
```

```
3.Average Case
```

```
Enter your choice: 1
```

```
Enter the elements of array
```

```
BUBBLE SORTING
```

```
Array after 1 pass:
```

```
3  
2  
1  
4
```

```
Array after 2 pass:
```

```
2  
1  
3  
4
```

```
Array after 3 pass:
```

```
1  
2  
3  
4
```

```
Comparisons=6
```

```
Want to do more(Y/N)?
```

3B - Selection Sort

Enter the no of elements in array: 3

*****MENU*****

1.Worst Case

2.Best Case

3.Average Case

Enter your choice: 1

Enter the elements of array

SELECTION SORTING

Array after 1 pass:

1
2
3

Array after 2 pass:

1
2
3

Comparisons=3

Want to do more(Y/N)? ☐

3C - Insertion Sort

Enter the no of elements in array: 5

*****MENU*****

1.Worst Case

2.Best Case

3.Average Case

Enter your choice:1

Enter the elements of array

INSERTION SORTING

Array after 1 pass:

4
5
3
2
1

Array after 2 pass:

3
4
5
2
1

Array after 3 pass:

2
3
4
5
1

Array after 4 pass:

1
2
3
4
5

no of comparisons=10

Want to do more(Y/N)?

3D - Merge Sort

```
Enter the number of data element to be sorted: 4
Enter element 1: 9
Enter element 2: 5
Enter element 3: 2
Enter element 4: 3

Sorted Data ->2->3->5->9
-----
Process exited after 8.234 seconds with return value 0
Press any key to continue . . . █
```

3E - Quick Sort

```
Enter the number of data element to be sorted: 5
Enter element 1: 1
Enter element 2: 7
Enter element 3: 3
Enter element 4: 4
Enter element 5: 8

Sorted Data ->1->3->4->7->8
-----
Process exited after 10.34 seconds with return value 0
Press any key to continue . . .
```