

DAA

# Practical Exam 2021

B.Sc. (H) Computer Science

Sem-4

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## Question 1

```
C:\Users\91801\Desktop\Question 1.exe
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Display its preorder and inorder transversals.
5.Exit.
1
```

```
C:\Users\91801\Desktop\Question 1.exe
Preorder:
Element: 17      Color: Black
Inorder:
Element: 17      Color: BlackPress any key to continue . . .
```

### After inserting some elements

```
C:\Users\91801\Desktop\Question 1.exe
Preorder:
Element: 4      Color: Black
Element: 3      Color: Black
Element: 17     Color: Black
Element: 10     Color: Red
Inorder:
Element: 3      Color: Black
Element: 4      Color: Black
Element: 10     Color: Red
Element: 17     Color: BlackPress any key to continue . . .
```

```
C:\Users\91801\Desktop\Question 1.exe

Enter number to be deleted.
10
Press any key to continue . . .
```

```
C:\Users\91801\Desktop\Question 1.exe

Preorder:

Element: 4      Color: Black
Element: 3      Color: Black
Element: 17     Color: Black
Inorder:

Element: 3      Color: Black
Element: 4      Color: Black
Element: 17     Color: BlackPress any key to continue . . .
```

```
C:\Users\91801\Desktop\Question 1.exe

Enter number to be searched.
3

3color :blackPress any key to continue . . .
```

## Question 2

```
C:\Users\91801\Desktop\Question 2.exe
Kruskal's Algorithm
Enter the no. of vertices in the graph:5

Enter the weights of the following:
edge 1 , 2 :_
```

```
THE MINIMUM SPANNING TREE IS
The edge included in MST is :: < 1 , 4 >
The edge included in MST is :: < 3 , 5 >
The edge included in MST is :: < 1 , 5 >
The edge included in MST is :: < 2 , 5 >
Edge < 4 , 5 > is not included as it forms a cycle

Edge < 1 , 2 > is not included as it forms a cycle
Edge < 2 , 4 > is not included as it forms a cycle
Edge < 1 , 3 > is not included as it forms a cycle
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 40.25 seconds with return value 0
Press any key to continue . . .
```

## Question 3

```
C:\Users\91801\Desktop\Question 3.exe

Enter the size of array:
4

Enter elements in an array:
17
3
4
10

Elements are:
17 3 4 10
-----Enter choice-----

1. Bubble Sort
2. Selection Sort
3. Insertion sort
4. Merge Sort
5. Quick sort
6. Exit
```

```
sorted array is:
3 4 10 17
Total number of comparisons are: 3
-----
Process exited after 23.16 seconds with return value 0
Press any key to continue . . .
```