



RAMANUJAN COLLEGE

(UNIVERSITY OF DELHI)

Practical Exam

Design And Analysis Of **Algorithms**

Submitted by-

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Course: BSc Hons Computer Science

Submitted to-

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Outputs

Question 1:

Insertion of 1st node-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Display its preorder and inorder transversals.
5.Exit.
1_
```

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter the number to be inserted in tree.
3_
```

Insertion of 2nd node-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter the number to be inserted in tree.
6
```

Insertion of 3rd node-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter the number to be inserted in tree.
8
```

Displaying the entered nodes-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Display its preorder and inorder transversals.
5.Exit.
4
```

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

Preorder:
Element: 6      Color: Black
Element: 3      Color: Red
Element: 8      Color: Red
Inorder:
Element: 3      Color: Red
Element: 6      Color: Black
Element: 8      Color: Red
Press any key to continue . . .
```

Deletion of node-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

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

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

Enter number to be deleted.
6
Press any key to continue . . .
```

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

Preorder:
Element: 3      Color: Red
Element: 8      Color: Red
Inorder:
Element: 3      Color: Red
Element: 8      Color: Red
Press any key to continue . . .
```

Searching the node-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

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

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe

Enter number to be searched.
5

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

Exit-

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Display its preorder and inorder transversals.
5.Exit.
5
```

```
C:\Users\Kajal Kashyap\Downloads\Red&Black-tree.exe
-----
Process exited after 443.4 seconds with return value 0
Press any key to continue . . .
```

Question 2:

```
C:\Users\Kajal Kashyap\Desktop\4th sem\DAA_Ques2.exe
Following are the edges in the constructed MST
2 -- 3 == 5
0 -- 3 == 7
1 -- 3 == 12
Minimum Cost Spanning Tree: 24
-----
Process exited after 7.798 seconds with return value 0
Press any key to continue . . .
```

Question 3: