



दिल्ली विश्वविद्यालय

University of Delhi

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COLLEGE ROLL NO. : 20191425

EXAM ROLL NO. : 19020570024

COURSE : B.SC.(H) CS

SEMESTER : 4th

**Design and Analysis of
Algorithm
PRACTICAL EXAM**

- Question 1 :

```
V:\Naman_Jain\DAA\Red Black tree.exe
Enter your choice.
1.Insertion.
2.Deletion.
3.Search a number.
4.Display its preorder and inorder transversals.
5.Exit.
```

```
V:\Naman_Jain\DAA\Red Black tree.exe

Preorder :

Element: 3      Color: Black
Element: 2      Color: Black
Element: 4      Color: Black
Element: 7      Color: Red
Inorder:

Element: 2      Color: Black
Element: 3      Color: Black
Element: 4      Color: Black
Element: 7      Color: RedPress any key to continue . . .
```

```
V:\Naman_Jain\DAA\Red Black tree.exe

Enter number to be searched.
7
7color :redPress any key to continue . . .
```

```
V:\Naman_Jain\DAA\Red Black tree.exe

Enter number to be deleted.
2
Press any key to continue . . .
```

```
V:\Naman_Jain\DAA\Red Black tree.exe

Preorder :
Element: 4      Color: Black
Element: 3      Color: Black
Element: 7      Color: Black
Inorder :
Element: 3      Color: Black
Element: 4      Color: Black
Element: 7      Color: BlackPress any key to continue . . .
```

- Question 2

```
V:\Naman_Jain\DAA\New folder\Prim's Algorithm.exe

Edge : Weight
0 ---> 5 : 10
5 ---> 4 : 25
4 ---> 3 : 22
3 ---> 2 : 12
2 ---> 1 : 16
1 ---> 6 : 14

-----
Process exited after 0.1135 seconds with return value 0
Press any key to continue . . .
```

- Question 3

V:\Naman_Jain\DAA\New folder\Sorting.exe

Enter number of elements to be sorted:

4

Enter 4 elements to be sorted:

2 6 3 1

Enter the sorting technique to be used

1. Bubble Sort
2. Selection Sort
3. Insertion Sort
4. Merge Sort
5. Quick Sort

1

Sorted array is:1 2 3 6

No of Comparisions : 4

Process exited after 9.661 seconds with return value 0

Press any key to continue . . .

V:\Naman_Jain\DAA\New folder\Sorting.exe

Enter number of elements to be sorted:

4

Enter 4 elements to be sorted:

2 6 3 1

Enter the sorting technique to be used

1. Bubble Sort
2. Selection Sort
3. Insertion Sort
4. Merge Sort
5. Quick Sort

2

Sorted array is:1 2 3 6

No of Comparisions : 4

Process exited after 6.49 seconds with return value 0

Press any key to continue . . .

V:\Naman_Jain\DAA\New folder\Sorting.exe

Enter number of elements to be sorted:

4

Enter 4 elements to be sorted:

2 6 3 1

Enter the sorting technique to be used

1. Bubble Sort
2. Selection Sort
3. Insertion Sort
4. Merge Sort
5. Quick Sort

3

Sorted array is: 1 2 3 6

No of Comparisions : 4

Process exited after 10.31 seconds with return value 0

Press any key to continue . . .