Name :-

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Subject :- ADSA

Lab Assignment 2

Question 1

```
PS C:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2> cd "c:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2\" ; if ($?) { gcc S20230010193_A02.c -o S20230010193_A02 } ; if ($?) { .\S202300
10193_A02 }
Enter which question you want to run: 1
insertion sort is the best algorithm for this problem
enter the size of array: 5
enter the array: 1
3
2
5
4
sort array: 1 2 3 4 5
```

Question 2

```
PS C:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2> cd "c:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2\" ; if ($?) { gcc S20230010193_A02.c -o S20230010193_A02 } ; if ($?) { .\S202300
10193_A02 }
Enter which question you want to run: 2
Enter size of array: 5
Enter array: 3
9
4
6
1
number of swaps: 6
```

Question 3

```
PS C:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2> cd "c:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2\" ; if ($?) { gcc S20230010193_A02.c -o S20230010193_A02 } ; if ($?) { .\S202300
10193_A02 }
Enter which question you want to run: 3
Enter the number of elements you want to heap: 6
Enter elements: 6
8
7
1
3
4
Created min heap: 1 3 4 8 6 7
Delete minimum (1 for yes | 0 for no): 1
After deletion of minimum: 3 6 4 8 7
Delete minimum (1 for yes | 0 for no): 1
After deletion of minimum: 4 6 7 8
Delete minimum (1 for yes | 0 for no): 1
After deletion of minimum: 6 8 7
Delete minimum (1 for yes | 0 for no): 1
After deletion of minimum: 7 8
Delete minimum (1 for yes | 0 for no): 0
```

Question 4

```
1                                       cd "c:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2\" ; if ($?) { gcc S20230010193_A02.c -o S20230010193_A02 } ; if ($?) { .\S202300
10193_A02 }>
Enter which question you want to run: 4
enter the size of stack: 10
Enter the element in stack: 10
9
1
2
3
4
5
6
7
8
enter the k (number of element to be removed)5
maximum sum possible is 40
```

Question 5

```
PS C:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2> cd "c:\IIITS ASSIGNMENTS\Sem 3\ADSA\Assignment 2\" ; if ($?) { gcc S20230010193_A02.c -o S20230010193_A02 } ; if ($?) { .\S202300
10193_A02 }
Enter which question you want to run: 5
Enter number of player participated in marathon (n): 10
Enter the age array: 60
72
45
18
67
22
41
29
36
66
Age of 3 youngest player are 18 22 29
Age of 3 older player are 72 67 66
```