

## 1.Circular Queue:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q1.exe
Enter size of Circular Queue: 3

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 1
Enter value to enqueue: 4
Enqueued 4

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 1
Enter value to enqueue: 2
Enqueued 2

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 1
Enter value to enqueue: 7
Enqueued 7

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 3
Queue elements: 4 2 7

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 2
Dequeued 4

Menu:
```

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q1.exe
Enter your choice: 2
Dequeued 4

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 3
Queue elements: 2 7

Menu:
1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter your choice: 4
Exiting...

-----
Process exited after 137.6 seconds with return value 0
Press any key to continue . . .
```

## 2. Priority Queue:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q2.exe

1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter choice: 1
Enter value & priority: 8
6
Enqueued: 8 (Priority: 6)

1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter choice: 1
Enter value & priority: 7
2
Enqueued: 7 (Priority: 2)

1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter choice: 2
Dequeued: 8 (Priority: 6)

1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter choice: 3
7 (Priority: 2)

1. Enqueue
2. Dequeue
3. Traverse
4. Exit
Enter choice: 4
Exiting...

-----
Process exited after 31.45 seconds with return value 0
Press any key to continue . . .
```

## 3. Factorial using recursion:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q3.exe

Enter a number to find its factorial: 6
Factorial of 6 is: 720

-----
Process exited after 17.74 seconds with return value 0
Press any key to continue . . .
```

4. Fibonacci series using recursive function:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q4.exe
Enter the position (n) to find the nth term of Fibonacci series: 8
Fibonacci term at position 8 is: 21

-----
Process exited after 18.45 seconds with return value 0
Press any key to continue . . .
```

5. GCD of two numbers using recursive function:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q5.exe
Enter two numbers to find their GCD: 89
66
GCD of 89 and 66 is: 1

-----
Process exited after 18.81 seconds with return value 0
Press any key to continue . . .
```

6. Tower of Hanoi using recursive function:

```
C:\Users\Basant\Desktop\Dsa lab\Lab 5\Q6.exe
Enter the number of disks: 4
Move disk 1 from A to B
Move disk 2 from A to C
Move disk 1 from B to C
Move disk 3 from A to B
Move disk 1 from C to A
Move disk 2 from C to B
Move disk 1 from A to B
Move disk 4 from A to C
Move disk 1 from B to C
Move disk 2 from B to A
Move disk 1 from C to A
Move disk 3 from B to C
Move disk 1 from A to B
Move disk 2 from A to C
Move disk 1 from B to C

-----
Process exited after 15.14 seconds with return value 0
Press any key to continue . . .
```