

Name:- Vignesh.T
USN:- 1BM19CS5188.

Creating a Queue.

QUEUE[SIZE]

FRONT $\leftarrow -1$

REAR $\leftarrow -1$

Inserting an element in a circular queue. Algorithm

Step 1: IF FRONT $\neq 0$ and REAR \neq SIZE - 1

Write "OVERFLOW"

Goto Step 4

[END of IF]

Step 2: IF FRONT $\neq -1$ and REAR $\neq -1$

SET FRONT & REAR $\leftarrow 0$

ELSE IF REAR \neq SIZE - 1 and FRONT $\neq 0$

SET REAR $\leftarrow 0$

ELSE

SET REAR \leftarrow REAR + 1

[END of IF]

Step 3: SET QUEUE[REAR] \leftarrow VAL.

Step 4: EXIT.

Deleting an element from a queue - Algorithm

Step 1: IF FRONT = -1

Write "UNDER FLOW"

Go to Step 4.

[END OF IF]

Step 2: SET VAL = QUEUE[FRONT]

Step 3: IF FRONT = REAR

SET FRONT = REAR = -1

ELSE

IF FRONT = ^{SIZE} MAX - 1

SET FRONT = FRONT + 1

[END OF IF]

[END OF IF]

Step 4: EXIT.