1)

Input: a+BCd\*\*

Output: adB

Assuming arraySize=10

Both left and right Indexes start at 0

“a” is rightInsert at Pos. 0, rightIndex +=1 is updated to 1

“+” is removeLeft, so “a” is removed at leftIndex is +=1 updated to 1

“B” is leftInsert, so leftIndex is -=1 and “B” is inserted at Pos. 0

“C” is leftInsert, so leftIndex is -=1 and “C” is inserted at Pos. 9

“d” is rightInsert at Pos. 1, rightIndex +=1 is updated to 2

“\*” is removeRight, so rightIndex is -=1 and “d” is removed from Pos. 1

“\*” is removeRight, so rightIndex is -=1 and “B” is removed from Pos. 0

2)

Input: EAs+Y+QUE\*\*+st+\*+IO\*n++\*

Output: AYsEEUtQsOIn

3i)

Input: E+as\*\*Y+

Output: EsaY

3ii)

Output: YasE

Not Possible

3iii)

Input: Ea\*sY+\*+

Output: aYsE

3iv)

Input: Ea\*s\*Y++

Output: asYE

4)

The deque isEmpty when the rightPosition and LeftPosition are Equal AND their Indexes are Equal as well.

5)

The deque isFull when the rightPosition and LeftPosition are Equal AND their Indexes are exactly the ArraySize apart.