Clicker Qs about Stacks and Queues

Q1: Suppose we start with an empty stack and do the following operations:

push(1)
push(2)
pop()
push(3)
push(4)
pop()
pop()

What will be on the top of the stack?

A. 1
B. 2
C. 3
D. 4

Answer A: 1

Q2: Suppose we start with an empty queue and do the following operations:

enqueue(1)
enqueue(2)
dequeue()
enqueue(3)
enqueue(4)
dequeue()
dequeue()

What will be at the rear of the queue?

A. 2
B. 3
C. 4
D. This is a trick question; we can only see the front of the queue

Answer D: We can only see the front of the queue,

Q3: Suppose we start with an empty queue and do the following operations:

enqueue(1)
enqueue(2)
dequeue()
enqueue(3)
enqueue(4)
dequeue()
dequeue()

What will be at the front of the queue?

A. 1
B. 2
C. 3
D. 4

Answer D: 4

Which is correct?

A. Stacks use a First In – First Out protocol; Queues use a Last In – Last Out protocol
B. Stacks use a First In – Last Out protocol; Queues use a Last In – First Out protocol
C. Stacks use a Last In – First Out protocol; Queues use a Last In – Last Out protocol
D. Stacks use a Last In – Last Out protocol; Queues use a First In – Last Out protocol

Answer C:

Stacks are Last In – First Out (which is the same as First In – Last Out).

Queues are Last In – Last Out (which is the same as First In – First Out)