**Answer:** **(D)**   
  
**Explanation:** Processes can run in many ways, below is one of the cases in which x attains max value

Semaphore S is initialized to 2

Process W executes S=1, x=1 but it doesn't update the x variable.

Then process Y executes S=0, it decrements x, now x= -2 and

signal semaphore S=1

Now process Z executes s=0, x=-4, signal semaphore S=1

Now process W updates x=1, S=2

Then process X executes X=2

So correct option is D