

## Quiz # 3

Semaphore A,B,C

A=1,B,C=0

int C1,C2=0

Function 1 (Hydrogen)	Function 3 (Sulfur)	Function 3 (Oxygen)
<pre>void function1() {wait(A) C1++ cout&lt;&lt;"H"; if(C1%2==0)     signal(B) else     signal(A) }</pre>	<pre>void function2() {wait(B) cout&lt;&lt;"S"; signal(C) }</pre>	<pre>void function3() {wait(C) C2++ cout&lt;&lt;"O"; if(C2%4==0)     signal(A) else     signal(C) }</pre>

## Quiz # 4

32 bit logical address= $2^{32}$

And page size is 4KB= $2^{12}$

Total number of pages = $2^{32}/2^{12}=2^{20}=1\text{M}$

So 20 bits will be needed for page number

64MB physical memory= $2^{26}$

Total number of frames = $2^{26}/2^{12}=2^{14}$

Hence 14 bits will be needed for frame number.

Approximate page table size=1M\*14bits or we can round off 14 bits to 16 bits i.e. 2 bytes then answer will be 2MB