

# Quiz 3 & 4

## BSCS-4H

**Date: 15-May-23**

**Question # 1:**

**[Marks: 5]**

The process of hooking up hydrogen, sulfur and oxygen atoms to form sulfuric acid molecules ( $\text{H}_2\text{SO}_4$ ). Each atom is represented by a separate thread, All you need to do is to associate two hydrogen atoms with one sulfur atom followed by 4 oxygen atoms. Use semaphores to accomplish this task.

Function 1 (Hydrogen)	Function 2 (Sulfur)	Function 3 (Oxygen)
<pre>void function1() { cout&lt;&lt;"H"; }</pre>	<pre>void function2() { cout&lt;&lt;"S"; }</pre>	<pre>void function3() { cout&lt;&lt;"O"; }</pre>

**Question # 2:**

**[Marks: 5]**

Consider a machine with 64 MB physical memory and a 32 bit virtual address space. If the page size is 4 KB, what is the approximate size of the page table?