



NATIONAL UNIVERSITY
OF COMPUTER & EMERGING SCIENCES

CS2006 – Operating System

Fall 2023

ID: _____

Name: _____

Quiz # 2

Marks: 10

Date: _____

1. Explain and give an example of the term **Busy Waiting**.

Busy waiting term is used when the process is not progressing in its working, and instead just utilizing its CPU cycles waiting for a condition to be satisfied in a tight loop. For example, a process is stuck in a while loop, 'while (b!=0);'. Here, whenever the process starts its execution on its turn, it will be executing just this loop and waiting for this variable 'b' to be 0.

2. What is the difference between “**Test & Set**” and “**Fetch and Increment**”.

These two are methods for acquiring a semaphore. In Test and Set, the value of the semaphore is checked to be true or false. If it is False, it is set to True *and the semaphore is acquired*. In Fetch and increment, the value of the semaphore is fetched, and the actual value is incremented by 1.