

Quiz#3

SE-5A

Time: 8 mins

Q#1.

What is the critical section problem in multithreading, and why is it important to use mechanisms like ***pthread_mutex_lock*** and ***pthread_mutex_unlock***?

Ans: The critical section is a segment of code that accesses shared resources. Synchronization mechanisms like ***pthread_mutex_lock*** and ***pthread_mutex_unlock*** prevent simultaneous access, ensuring data consistency.

Q#2.

Write a program where **10 threads** increment a shared counter **1,000 times** each. Ensure the final counter value is consistent using a mutex for synchronization.