

Discussion 5: Synchronization [Oct 9, 2015]

Student Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

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Part A) Short Questions:

1. What is a critical region? Are there any special things to do to ensure correctness while executing through critical region?

2. What is busy waiting? Is busy waiting a good practice, what are your thoughts?

3. What is test&set? How can a test&set instruction be used to support the implementation of critical sections? What are the advantages and disadvantages?

Part B)

Think about a real world scenario where we encounter a critical region and need to use semaphore/mutex to resolve it. Write pseudo-code to demonstrate the usage of semaphore/mutex to solve the problem in the scenario you just described.