BIRZEIT UNIVERSITY

ENCS3390- Operating Systems

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Quiz #3

Section#4

December 21, 2021

Student Name: ………………………………………………………

Student ID: ………………………………………………………..

Quiz Time: 20 minutes

Question #1 (10 Points): True or False. Correct the false ones. Write your answers in the table below

1.T	2.F	3.T	4.T	5.F

1. **(T/F)** Starvation is always possible in the dining philosophers problem

Correction if False Monitors solved the deadlock problem but starvation is still possible

2. **(T/F)** Atomic operation contains only one instruction.

Correction if False: atomic operation can contain more than one instruction, but it cannot be interrupted.

3. **(T/F)** Binary semaphore is the same as the `mutex` lock

Correction if False ---

4. **(T/F)** The `signal ()` operation of the condition variable turns into a no-op (no effect), if there are no processes waiting on this condition variable.

Correction if False ---

5. **(T/F)** lock `acquire()` operation must be atomic, whereas the `release()` operation can be non-atomic

Correction if False both acquire() and release() must be atomic

Question #2 (10 Points): Write a pseudo code (or a C++ code) to solve the bounded buffer problem using monitors.

As in the slides

GOOD LUCK