

Course No: **SWEN4420**

Course Title: **Concurrent and
real-time programming**

Date: **19/04/ 2018**

No. of Questions: **3**

Time: **1 hr**

Using Calculator (**No**)

University of Palestine



Midterm Exam

First term 2017/2018

Total Grade: **15**

Instructor: **Dr. AbdelhameedZughbor**

Student No.: _____

Student Name: _____

College Name: **Eng.College**

Dep. / Specialist: **Software Engineering**

First Question

4 points

Explain readers writer's problem in concurrent programmes and the solution by using standard monitors in addition to write single class which cover this approach
Note / your solution should be tolerant to the InterruptedException

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Second Question

7 points

1. What is the possible states for a thread.

2. Explain each of these method's work
 1. `interrupt()` /
 2. `isInterrupted()` /
 3. `interrupted()` /

3. Why JAVA's scheduling and priority models are weak :
 - 1.
 - 2.
 - 3.

4. By drawing demonstrate threads, fiber or green threads, process and relation to operating system

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Third Question

4 points

This program has two tasks (Ordinary Task) and (Runnable Task).

- Write Ordinary task class which will use progress bar to provide process status and modify it to be Runnable task works concurrently as you see below.
- Write invocation code for both of task in main method

Note/don't waste time on GUI initiationcode

