**CG2271 Real Time Operating Systems**

**Lab 5 - Synchronization**

**Answer Book**

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| --- | --- |
| Name: | Matric Number: |
| Name: | Matric Number: |

**Submission Deadline: Friday 31 March midnight**

**Submit under IVLE 🡪 Files 🡪 Lab5-Submissions 🡪 Your Lab Group**

**Question 1A (1 mark)**

**By sharing the same code section, Task 1 and Task 2 are threads.**

**Question 1B (2 marks)**

**As both Task 1 and Task 2 are threads that share the same resource (int taskNum), while Task1 is running with taskNum = 1, it may get context switched out**

**Question 2A (2 marks)**

**Using binary semaphore controls the access to a single shared resource. Mutex are binary semaphores but it employs priority inheritance.**

**Question 2B (4 marks)**

**Question 3A (4 marks)**

**Question 3B (2 marks)**

**Question 4A (1 mark)**

**Question 4B (1 mark)**

**Question 4C (4 marks)**

**Question 5A (4 marks)**

**Question 5B (1 mark)**

**Question 5C (1 mark)**

**Question 6A (4 marks)**

**Question 6B (2 marks)**

**Question 7A (2 marks)**

**Question 7B (2 marks)**

**Question 7C (2 marks)**