CAB403 Assignment Marking Criteria

Student Name(s): _____

Student Number(s): _____

Total Marks: _____ /**100**

NOTE: Programs that do not compile on the Linux command line will receive a mark of zero (0). Submission must be implemented in the C programming language using BSD sockets on the Linux operating system which has been used in the weekly practicals.

Programs which crash (or "segmentation fault") during testing of a criteria will receive zero (0) for the criteria, and any which depend on it. For example, a program which crashes during login will not be tested for gameplay.

If you attempt Task 2 and 3, only one (1) server program is required to be submitted, incorporating all the functionality from the previous tasks.

FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

Task 1: (____/50)

Criteria	Marks
Network byte order is used for transmitting multi-byte data types (server and client)	/2
Server command line parameter – configurable port & default port	/2
Server authenticates client using data in "*Authentication.txt*" file	/5
Server exits gracefully upon receiving SIGNAL (ctrl + c)	/3
Client command line parameters	/2
Client menu implementation	/3
Client exits gracefully when user selects "Quit" option from menu	/2
Quitting part-way through a game resets the playfield	/2
Random number generator is seeded as per assignment specification	/1
Mines are placed on playfield using algorithm from assignment specification	/1
Revealing a tile with adjacent mines shows the number of adjacent mines	/2
Revealing a tile with zero adjacent mines reveals neighbouring zero mines	/4
Revealing a tile with a mine ends the game, and displays the full playfield	/2
Placing a flag on a tile with a mine decrements the remaining mine count	/2
Placing a flag on a tile without any mine has no effect on remaining count	/2
Placing flags on all mines results in a game win, and the full playfield displayed	/4
Time taken to complete the game is measured and displayed correctly	/2
Leader board is updated after winning a game	/3
Leader board is displayed as per assignment specifications	/3
Description of the data structure that is used for the Leader Board in your report	/3

Task 2: (____/20)

Criteria	Marks
Multithreaded implementation	/10
Process synchronization	/6
Description of how the critical-section problem is handled in your report	/4

Task 3: (____/16)

Criteria	Marks
Thread pool creation	/7
Thread pool use	/3
Thread pool cleaning	/3
Description of how the thread pool is created and managed in your report	/3

PROGRAM QUALITY

Marks: (____/10)

Criteria	Marks
Program structure & readability	/2
Program performance	/2
Resource management	/3
Program reliability (e.g. run time errors, deadlocks, file I/O)	/3

REPORT QUALITY

Marks: (____/4)

Criteria	Marks
Statement of completeness	/2
Instructions on how to compile and run your program	/2

Comments:

NOTE: Allocation of marks depends on which tasks are attempted.

Task	Functional and Non-functional Requirements	Code Quality	Report	Maximum Marks
Task 1 only	50	10	4	**64**
Task 1 and Task 2	70	10	4	**84**
Task 1, Task2 and Task 3	86	10	4	**100**