CMPS 164 Spring 2013

Late-Term Exam (Quiz II)
50 Points (+5 bonus)

(Write your name and ID on every page and put the total number of pages used on this page)

1. (10 points) What is truncation error in simulations? How does it affect your minigolf game?

2. (10 points) Run an application (preferably your minigolf, but you can choose another one) in the visual studio profiler and show the following:
   a. Hot paths in your code
   b. Ranking of functions that take up the most resources
   c. CPU utilization chart that includes playthrough of any two holes in the course

BONUS : (5 points) Run the profiler on a different computer and compare results.

3. (10 points) You have been tasked with porting a PC-based turn-based strategy game to the console and rewriting the input system. How would you go about mapping the controls on the console? (HINT: Pick a game and chart out keyboard-mouse controls, then write down the corresponding key presses on the console controller of your choice)

4. (10 points) Briefly describe the rendering subsystem for Sifteo cubes with limitations on the textures and idioms for rendering layers of sprites on the screen.

5. (10 points) Skim through the following article on a game engine for the Game Boy Advance system (part 2.2 that describes the hardware and tile drawing). Compare the specs (rendering pipeline, timers, etc.) with the Sifteo cube hardware.

http://image.diku.dk/projects/media/kirk.06.pdf