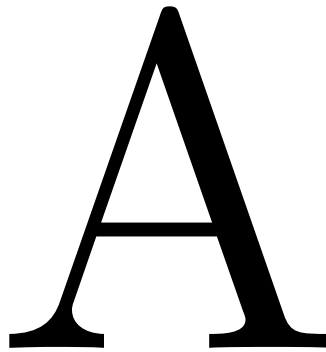Course ECE354 Real-time Operating Systems

Quiz 3A

Jul 12, 2010

Be concise, short, and to the technical point in your answers. Otherwise, you will be unable to answer all questions in time.

1. What material did you **mainly** use to prepare for the quiz? Pick only one; any selection will get you full points.   *[1p]*

   □Printed book   □Electronic book   □Own notes on slides   □Abstain

2. Assume a computer system with three memory frames. The system uses the clock algorithm with one use bit for its replacement policy. Executing the programs leads to the following page request stream:

   2 3 4 1 3 2 4 2

   - Describe the status of each memory frame (contents and use bit) and the location of the 'next pointer' after each page request.   *[4p]*
   - Count the number of page faults. (Note: a page fault occurs, when the requested page is not in memory)   *[2p]*

3. Describe what absolute loading means and list one reason why the user doesn't want to use absolute loading.   *[4p]*

4. Describe a system-oriented scheduling criterion.   *[4p]*

   End of quiz. Total points: 15

A

Quiz guide: The exam consists of 4 questions. The exam's total number of points is listed at the end. The quiz duration is 16minutes. Note make sure you don't have the same quiz ID as any of your neighbours. If you have, say so immediately. **If you don't, you will invalidate your score.**