ECE 4750 Computer Architecture, Fall 2016
Quiz 1 – Collaboration Policy

revision: 2023-08-20-23-21

SOLUTIONS

NAME: _____   NetID: _____

This is a closed book, closed notes quiz. You may use a calculator if you wish. You may not talk to other students during the quiz. Please ask the instructor if you need clarification. The quiz should accurately reflect your knowledge of the material. When you are finished, please wait for it to be collected.

Problem 1. Collaboratively Working on Pipeline Diagram

Ben and Alice are lab partners, and they have previously provided "consulting" help to each other on the problem sets. They have independently completed all of the final problem set, except that they are both struggling on a problem that requires students to draw a detailed pipeline diagram illustrating the execution of an out-of-order superscalar processor. The diagram is too intricate to be drawn on a whiteboard, so Ben and Alice sit down together with Ben's laptop and they jointly fill in an excel spreadsheet representing the pipeline diagram. Ben begins by filling in the spreadsheet, with Alice looking over his shoulder offering advice, then Alice takes a turn working on the spreadsheet with Ben looking over her shoulder offering advice. When finished, they both copy the excel spreadsheet into their problem sets and independently, each student adds some text describing the machine's execution.

This is an example of:

- A. Acceptable collaboration if students acknowledge their collaboration on submisison
- B. Acceptable collaboration even if students do not acknowlege their collaboration
- C. Unacceptable collaboration

Problem 2. Casual Advice from Fellow Student

Ben's group is struggling on a lab assignment that involves implementing a pipelined processor. He bumps into Alice in the hall. Ben and Alice are *not* lab partners. Ben knows Alice has been doing very well in the class, and so Ben asks for any tips Alice might offer in completing the lab. Alice takes a moment to refer Ben to a specific section of Harris & Harris which might be of some use, tells Ben to be careful about how he implements the bypassing, and suggests an incremental design approach. Ben then works with his group to finish and submit the lab assignment.

This is an example of:

- A. Acceptable collaboration if students acknowledge their collaboration on submisison
- B. Acceptable collaboration even if students do not acknowlege their collaboration
- C. Unacceptable collaboration

Problem 3. Problem Set Study Group

Ben, Bob, Alice, and Amy have formed a study group for the course. They meet weekly to discuss recent lectures and readings. In addition, they usually collaborate on the problem sets using the following strategy: (1) each student works on all of the problems independently and writes up their own initial solution; (2) the study group meets and discusses each problem by reviewing the related lecture material, talking about how it connects to the problem, and sketching out solution approaches at a high-level on the white-board; (3) each student leverages what they learned from the study group to independently revise and finalize their solutions before submission.

This is an example of:

- A. Acceptable collaboration if students acknowledge their collaboration on submisison
- B. Acceptable collaboration even if students do not acknowlege their collaboration
- C. Unacceptable collaboration

Problem 4. Using Online Resources and Discussion Forums Outside Cornell

Ben is struggling on a lab assignment that requires students to implement a direct-mapped cache. Ben is the design lead for his group. He posts a question on the Piazza discussion forums, but doesn't receive a reply. So Ben starts searching online for useful background material. He stumbles upon an RTL implementation of a direct-mapped cache on the course website at a different university. Ben starts working with this implementation, but it doesn't quite meet the requirements of the lab assignment. So Ben posts his changes to the code on a public discussion board (outside Cornell) asking for help. Various individuals outside Cornell post ideas on how to improve the implementation to meet the requirements of the lab assignment. Ben integrates all of this into his lab submission, and writes up the lab report with his group.

This is an example of:

- A. Acceptable collaboration if students acknowledge their collaboration on submisison
- B. Acceptable collaboration even if students do not acknowlege their collaboration
- C. Unacceptable collaboration

Problem 5. Working with a Stronger Fellow Student

Ben and Alice are not lab partners, but they often work together studying for the course and completing the problem sets. Ben is struggling on a problem set, and he knows Alice is doing very well in the course. So Ben and Alice meet at the library, and Alice shows Ben her solutions. Ben goes through Alice's solutions, discusses the solutions with Alice, and then copies some of her work into his own solutions.

This is an example of:

- A. Acceptable collaboration if students acknowledge their collaboration on submisison
- B. Acceptable collaboration even if students do not acknowlege their collaboration
- C. Unacceptable collaboration