

CSCI 1311: Quiz 10

20 Apr. 2020

Name: _____ email: _____

Question Weighting

| | | | | |
|-----------|---|---|---|-------|
| Question: | 1 | 2 | 3 | Total |
| Points: | 3 | 4 | 3 | 10 |
| Score: | | | | |

Submission Instructions

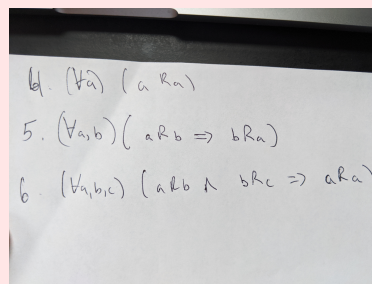
When submitting on gradescope, you can submit pictures of your answers. If you do so then ...

...you should upload a zoomed in image per question/part; do not submit a single large picture of an entire page if it can be practically avoided.

This will really help improve grading. For example, if I was answering the questions

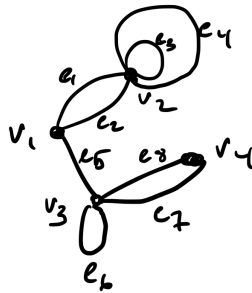
5. What is the definition for a relation to be symmetric?

I would upload a zoomed in picture (like the one on the right) that clearly included the answer to Question 5. Perhaps the image would include the answer to some other questions, like Question 4 or 6, but each question is well marked and zoomed in for this group of related questions. **Please do not upload an entire page of answers, which makes it very difficult to grade, for example, to identify Question 5.**



- The quiz is due to Gradescope at 2:59am EDT (11:59 PM PDT)
- You can learn the answer to the "Lab Question" by attending one of the lab sections.

1. Consider the following undirected graph:



(a) [1 point] What is the matrix representation of the graph?

(b) [2 points] How many circuits of length 2 exist in the graph? (show your work)

2. [4 points] For a full binary tree with height $h > 1$, what is the number of internal vertices? Explain your answer.

3. [3 points] Produce the DFS spanning tree of the following graph, starting with a where ties are broken by alphabetic ordering.

