FINAL EXAM, Part 2: CS-349 Front-end Web Development

(45 points) Part 2: Coding section (React.js)

This part of the final has short, essay questions, and a question asking you to create a simple React.js app. You have had the last week to work on that app, for those who like taking their time and wish to do more challenging apps. If you have completed that, then upload it to your github site.

For those who have not done that, choose a simple React app to do. Some ideas are given on question 6, but feel free to choose your own React app.

For the coding questions, upload your React.js project WITHOUT the node.js files to Titanium, and be sure to note the github link in the space under question 6.

Do not submit code taken from the Internet.

(5 points) 1. What is React, who created it, and how does it compare to a framework like Angular (give at least three ways it compares to Angular)?

React is an open-source, front-end web framework for buildingan interactive UI specifically for single-page applications. It was created by a software engineer at Facebook, Jordan Walke.
Differences:
React is a framework only for UI development.
Multiple tools are needed to test the entire app written in React.
In React, each component has its own state.

(5 points) 2. Does React have any limitations ? If so, list at least three of them.

Cons of React:
React environment continually upgrading making it is hard to relearn new stuffs.
Constantly updating technologies make developers have mo time to make proper documentary.
React JS is only for UI so developers still need addition tools to make a complete project.

(5 points) 3. List the lifecycles in React, and examples of the functions that are called during each.

Mounting: componentDidMount(){}
Unmounting: componentWillUnmount(){}
Updating: componentDidUpdate(){} or
            render(){}

(5 points) 4. What are props in React, can they be modified, how are they used?

Props are arguments passes into React components. Props can only be changed by a different component.

(5 points) 5. What is state in React, can it be modified, how is it used?

State is a build-in object of React. State store property values of the component and the component itself can change state.

(20 points). 6. Submit ONE of the following to your github portfolio. Do not submit both choices.

Please legibly write the name of your portfolio here https://github.com/HieNG94/CPSC349_final.git .

Choice A: Submit React mini-app you worked on in the week before finals

OR

Choice B: Write a simple React app that can… (here are some possible examples)
- *play three-dimensional tic-tac-toe (three boards side-by-side),*
- *play a 15-puzzle (see image to right), or*
- *create a simple (working) calculator, with 0-9, '.', + - * / +/-, a text field for showing the result, and AC (all clear).*
- *...*