**CQUPT EE310 2017 Fall Quiz 1a**

**(20min, 30pts)**

1. **(5pts) True or false**
2. You can discuss the quiz questions with your classmates.

True False

1. If you catch a flu and can’t come to class, it won’t be counted as absence if you talked to the instructor.

True False

1. If you sign in when you come to class but forget to sign out, it will be counted as absence

True False

1. To pass the class with an ‘C’, you have to score at least 66 by the end of the semester

True False

1. If you submit your lab report 1 week later than the due date, you will receive 10% off your lab grade.

True False

1. **Multiple answers (one or more correct answers)**
2. (2pts) Which of the following behaviors are not allowed during the exams?
3. Discuss exam questions with classmates
4. Show your answers to other students
5. Using cell phone as calculator
6. borrow your note sheets or calculator to other students
7. All of above
8. (2pts) Which of the following are improper behaviors in class?
9. Eating snacks
10. Taking a nap
11. Playing your cell phone
12. Leaving the classroom before the class is over
13. All of above
14. (4pts) Which of the following are proper behaviors for a successful problem solver
15. Can clearly define the problems
16. Can think of general or alternative solutions
17. Tend to manipulate symbols and equations to figure out what’s going on
18. Search for similar problems, depend on pattern matching
19. Adapt their approach to the situation as needed
20. Flexible and willing to revise hypotheses to match situation
21. Can’t plan how to test a hypothesis
22. Digital Design Concept
23. (5pts) Write the truth table for a 2-input XOR gate

1pt each combination

|  |  |  |
| --- | --- | --- |
| A | B | Y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

1. (6pts) Apply DeMorgan’s law to the expression:

-3pts if didn’t get the final expression

1. (6pts) What is the main difference between FPGA and ASIC?

Partial credit for reasonable answers (see picture below)

FPGA: hardware is ready before the design

ASIC: Need to go through the whole fabrication process

