

# CS 4501/6501: Quiz 9

31-Oct-2017

**Names:**

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**Instruction:** Answer the questions as concisely as you can. Please write neatly; if I can't read it I have to mark it wrong.

Consider the following predicate, along with the following test inputs:

$p = abc + !ab!c$

In Java,  $p = (a \ \&\& \ b \ \&\& \ c) \ || \ (!a \ \&\& \ b \ \&\& \ !c)$

	a	b	c	p	p <sub>a</sub>	p <sub>b</sub>	p <sub>c</sub>
t1	T	T	T				
t2	T	T	F				
t3	T	F	T				
t4	T	F	F				
t5	F	T	T				
t6	F	T	F				
t7	F	F	T				
t8	F	F	F				

1. (2 pts.) List tests that satisfy predicate coverage (PC). Specify with t1, t2, ..., t8

**Answer:** Any set of tests that evaluates  $p = \text{true}$  and  $p = \text{false}$

2. (2 pts.) List tests that satisfy clause coverage (CC). Specify with t1, t2, ..., t8

**Answer:** Any set of tests that evaluates  
a = true and a = false  
b = true and b = false  
c = true and c = false

3. (6 pts.) Complete the truth table and compute the determination. Fill in the missing columns in the given table (you should fill in the above table directly). No steps need be shown - only the result is graded.

**Answer:**

	a	b	c	p	p <sub>a</sub>	p <sub>b</sub>	p <sub>c</sub>
t1	T	T	T	T	T	T	T
t2	T	T	F		T		T
t3	T	F	T			T	
t4	T	F	F				
t5	F	T	T		T		T
t6	F	T	F	T	T	T	T
t7	F	F	T				
t8	F	F	F			T	