CS383 Programming Languages

Quiz 10

1. Which one of the following is not a type of polymorphism?

a. Subtype polymorphism

b. Universal polymorphism

c. Existential polymorphism

d. Constant polymorphism

2. Write down the type derivation tree for:

let swap = λp:Top. {p.2, p.1}
in {swap {true, false}, swap {21, 12}}

Top should be Top*Top

3. Give an example why the contra-variant rule is bad?

int*int <= int (S-Tupwidth)

Int*int <= int*(int*int) (Contra-variant)

(\x:int*(int*int).(x.2.1)) {0, 1}