ICS-365 HW9

\* Due Date – See Class Schedule \*

1. Write the following English conditional statements as Prolog headed Horn clauses:

a. If Fred is the father of Ted, then Fred is an ancestor of Ted.

ancestor(fred,ted) :- father(fred,ted)

b. If Mike is the father of Fred and Mike is the father of Mary, then Mary is the sister of Fred.

sister(mary,fred) :- female(mary)father(mike,fred), father(mike,mary).

c. If Mike is the brother of Fred and Fred is the father of Mary, then Mike is the uncle of Mary.

uncle(mike,mary) :- male(mike)brother(mike,fred), father(fred,mary)

2. What does it mean for a language to be procedural?

* The programmer knows what is to be accomplished by a program
* The programmer then instructs the computer on exactly how the computation is to be done.

3. What does it mean for a language to be non-procedural?

Non-procedural languages do not state exactly how a result is to be computed but rather describe the form of the result.

4. What are antecedents? What are consequents?

The right-hand side of a clausal form is called the antecedent. The left-hand side is called the consequent