**PROLOG QUESTIONS**

1. Solve the following:

likes(mary,food).

likes(mary,wine).

likes(john,wine).

likes(john,mary).

Write the queries to solve the following:

Does Mary like food?

Does John like wine?

Does John like food?

2. This is a fragment of logic paradigm code, with child(A,B) defined as ‘B is a child

of A’.

child(jade,mary)

child(mary,wilma)

child(wilma,joan)

child(bruce,barney)

child(bruce,betty)

descendant(A,B) :− child(A,B)

descendant(A,B) :− child(A,X) , descendant(X,B)

Extend the fragment of code to include the following facts and rule:

Kristy is the child of Joan and Steven

parent(P) means P has a child

3.

James I

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Charles I Elizabeth

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Catherine Charles II James II Sophia

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George I

Here is the resultant knowledge base:

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male(james1).

male(charles1).

male(charles2).

male(james2).

male(george1).

female(catherine).

female(elizabeth).

female(sophia).

parent(charles1, james1).

parent(elizabeth, james1).

parent(charles2, charles1).

parent(catherine, charles1).

parent(james2, charles1).

parent(sophia, elizabeth).

parent(george1, sophia).

Here is how you would formulate the following queries:

Was George I the parent of Charles I?

Who was Charles I's parent?

Who were the children of Charles I?

Now try expressing the following rules:

M is the mother of X if she is a parent of X and is female

F is the father of X if he is a parent of X and is male

X is a sibling of Y if they both have the same parent.

Furthermore add rules defining:

"sister", "brother",

"aunt", "uncle",

"grandparent", "cousin"