Prolog Logic
Example Exam Questions

1.

Using propositional calculus, explain the resolution method for proving theorems.

2.

Skolemization is the process of removing the first order predicate calculus quantifiers "for every" and "there exists". With some examples show what skolemization does.

3.

With appropriate examples, explain what skolemization means.

4.

Why is the `not` predicate unsound in Prolog?

5.

Although Prolog's name comes from PROgramming in LOGic, there are "non-logical" features built-in to Prolog. Briefly, discuss two of these features.

6.

Define and explain with respect to Prolog the following terms

Horn clause	closed world assumption	backward chaining	compound term
functor	backtracking	resolution	unification
factoring	Herbrand universe	forward chaining	literal
clause	conjunctive normal form		

7.

You are given the following database. Translate the database in CNF (conjunctive normal form).

```
p , q
r :- q
false :- p , s
s :- t
t
```

You want to query the database with r. What clause, should you add to your database?

Determine what the answer to your query is. You must show your work. Just answering yes or no is not worth any marks.