

CSCI 443: *Database Management Systems*
Quiz II
 April Fool's Day, 1993

The entire exam is to be turned in at 8:30PM. This is an open book exam. This exam is two pages long.

Name: _____

In this quiz you will use SQL to define tables, views, *etc.*, for an application involving four tables. The tables are:

(1) cats

A table consisting of two fields, cat id and cat name. Example rows are:

```
105  fluffy
107  slash
```

(2) people

A table consisting of two fields, social security number and name. Example tuples are:

```
2506070809  Flo
3506644220  Buford
```

(3) owns

This table relates cats with their owners. Example rows are:

```
105  2506070809
107  2506070809
```

Let's assume that every cat has one and only one owner.

(4) destroyed

This table relates cats with objects they have destroyed. Attributes of the table are id of cat, name of destroyed object, value of destroyed object, owner (social security number) of the destroyed object. Example rows are:

```
105  carpet          1000.00  3506644220
107  dalmatian       50.00    3506644220
```

Problem 1. (10 points)

Define in SQL the four tables mentioned above.

Problem 2. (10 points)

Define a SQL view with ``rows" consisting of the names of pets and their owners. The view should have only two columns, pet names and owner names.

Problem 3. (10 points)

Show how to generate a listing of pets and owners by names. The output of your command should look something like:

```
fluffy    Flo
slash     Flo
garfield  John
```

You may use any tables or views defined in previous problems.

Problem 4. (10 points)

How do you list the name of all cats owned by people named Tom?

Problem 5. (10 points)

Show how to make a list of all cats which have destroyed an object valued at more than \$1,000.

Problem 6. (10 points)

Show how to generate a listing such that each line of the listing gives the name of a cat and the value of all objects destroyed by the cat.

Problem 7. (10 points)

Generate a list of all cats that have destroyed objects of their owners.

Problem 8. (10 points)

How would you remove all cats named "Socks" from your database?

Problem 9. (10 points)

How do you insert a cat named "Kat" with owner "Bruce" into your database?

Problem 10. (10 points)

Suppose it has been discovered that the value of dalmatians was incorrectly listed as \$70.00 rather than \$13.00. How would you correct this mistake?