Spring 2016, CS122A, UC Irvine, Quiz 6, Prof. Chen Li

Student ID:_____ Name:_____ Score (out of 7):_____

Consider the following relation: **Flights**(fno INT, distance INT, price REAL)

1. Write a SQL query to find the price and distance of the cheapest flight, not less than 100 dollars, for each distance with at least 2 such flights, sorted by distance, in the increasing order.

2. Given the below table, what is the result of your query from question 1.

fno	distance	price
1	500	40
2	500	50
3	500	50
4	200	200
5	50	150
6	50	150
7	40	250
8	40	350

3. Write a SQL query to authorize a user called "Lilith" to delete records from a **Flights** table and also let her authorize other database users to delete records from the table as well.

GRANT _____ ON _____ TO _____ _____;

4. Suppose that a user "Cedric" receives an authorization from, but not only from, the user "Lilith" to delete records from **Flights**. If the DELETE privilege is revoked only from Lilith, can Cedric continue to delete records from Flights? (a) YES (b) NO

5. Create a view of the Flights table, with those having a price more than 40 dollars and less than 200 dollars and not equal to 150 dollars. Include the flight number, origin, and destination.

CREATE VIEW _____ (_____) AS
SELECT_____
FROM _____
WHERE _____

6. Suppose we have a table Dept(did, budget, empCount). We also have a view

```
CREATE VIEW BigDept(did, budget, empCount) AS
SELECT * FROM Dept where empCount > 100;
```

We want to make the view's content always consistent with the content of the base table. Write a row-level trigger to enforce this consistency for INSERT statements into the **Dept** table.

```
CREATE TRIGGER (_____)
AFTER INSERT ON (_____)
FOR EACH (_____)
BEGIN
    IF (_____) THEN
        _____
        _____
        _____
    END IF
END
```

7. Consider a relational table R(A, B, C, D, E, F) with a set of functional dependencies: A->B, B->C, CD->E, and AD->F. Is AD a candidate key? Why?