The following are examples of the types of questions you can expect to see on the midterm exam – the actual exam will be worth 100 points total, and you will have one hour and 15 minutes to complete it.

T/F questions, and multiple choice questions with a single answer will be worth 2 points – multiple choice questions with multiple correct answers will typically be worth 4 points (regardless of the number of true answers). Fill in the blank questions like question set 9-11 (which are also multiple choice) will range from 2-4 points each. I recommend that you have pencil and paper available when working on the fill-in-the-blank questions in particular, to make it easier to keep track of what you are doing.

Part I  (T/F)

1. _______ SQL is a nonprocedural language
2. _______ SQL Data Manipulation Language is used to define a primary key
3. _______ The BETWEEN clause includes the endpoints of the comparison
4. _______ A single INSERT statement can be used to add data to multiple tables
5. _______ An OUTER JOIN and an INNER JOIN can never return the same result

Part II (multiple choice)

6. Given a table with the structure: Agent (Agent_ID, Agent_Name, Agent_Salary), which of the following would find all agents whose name ends with a letter between "t" and "z"?

a) SELECT *
   FROM Agent
   WHERE Agent_Name IN ['t','z'];
b) SELECT Agent_Name
    FROM Agent
    WHERE Agent_Name LIKE 't' OR LIKE 'z';
c) SELECT *
    FROM Agent
    WHERE Agent_Name LIKE "%[t-z]";
d) SELECT *
    FROM Agent
    WHERE Agent_Name RLIKE '[t-z]$';
e) None of the above.
7. In a SQL query, which SQL keyword is typically used to allow comparisons against the value of an aggregate function?
   a) AND  
   b) EQUALS  
   c) HAVING  
   d) ALL  
   e) OR

8. Given the database tables above, what is the result of the following SQL statement?

   SELECT E.Emp_ID, E.Emp_LName, D.Dept_Name
   FROM Employee E, Department D
   WHERE E.Dept_ID IS NOT NULL

   a) it will only list the ID, last name, and department name for employees assigned to a department
   b) it will only list the ID, last name, and department name for employees not assigned to a department
   c) it will return an empty set of records
   d) it will return the Cartesian product of the two database tables
   e) it will return a set of records associating each employee who is assigned to a department with every one of the possible departments
Part III (fill in the blank)

Given the database provided on the final page of the exam...

Please fill in the blanks so that the query will display the total amount spent (identified as 'total spent') by each employee (identified by last name) at "A Soup Place":

Question 9 (3 pts)

```
SELECT (please fill in this blank)  
FROM (please fill in these blanks)  
WHERE (please fill in these blanks)  
GROUP BY (please fill in these blanks)  
```

a) SUM(Item_Price) AS 'total spent', Emp_LastName  
b) SUM(Item_Price*LI_Quantity), Emp_LastName  
c) COUNT(Item_Price*LI_Quantity) AS total spent  
d) SUM(Item_Price*LI_Quantity) AS 'total spent', Emp_LastName  
e) Item_Price*LI_Quantity AS 'total spent', Emp_LastName

Question 10 (4 pts)

```
SELECT (please fill in these blanks)  
FROM (please fill in these blanks)  
WHERE (please fill in these blanks)  
GROUP BY (please fill in these blanks)  
```

a) FROM Employee E, Supplier S  
   WHERE E.Emp_ID=L.Emp_ID AND L.Lunch_ID=LI.Lunch_ID  
   AND L.I.Item_Number=I.Item_Number AND I.Supplier_ID=S.Supplier_ID  
   AND S.Supplier_Name = 'A Soup Place'  
b) FROM Employee E, Supplier S  
   WHERE E.Emp_ID=S.Emp_ID  
   AND S.Supplier_Name = 'A Soup Place'  
c) FROM Employee E, Item I, Lunch L, Lunch_item LI, Supplier S  
   WHERE E.Emp_ID=L.Emp_ID AND L.Lunch_ID=LI.Lunch_ID  
   AND L.I.Item_Number=I.Item_Number AND I.Supplier_ID=S.Supplier_ID  
   AND S.Supplier_Name = 'A Soup Place'  
d) FROM Employee E, Item I, Lunch L, Lunch_item LI, Supplier S  
   WHERE E.Emp_ID=L.Emp_ID AND L.Lunch_ID=LI.Lunch_ID  
   AND L.I.Item_Number=I.Item_Number AND I.Supplier_ID=S.Supplier_ID  
   e) FROM Employee, Item, Lunch, Lunch_item, Supplier  
   WHERE Employee.Emp_ID=Lunch.Emp_ID AND  
   Lunch.Lunch_ID=LunchItem.Lunch_ID AND  
   LunchItem.Item_Number=Item.Item_Number  
   AND Supplier.Supplier_Name = 'A Soup Place'
Question 11 (3 pts)

```
SELECT __________________________
FROM __________________________
WHERE __________________________
GROUP BY ______________________
```

- a) Emp_LastName
- b) Item_Price*LI_Quantity
- c) Item_Price
- d) LI_Quantity
- e) Item_Price, LI_Quantity