MSDS 7330
File Organization and Database Management
Quiz Unit 6

This is a synchronous session quiz assignment for MSDS7330, File Organization and Database Management. This quiz is due at the end of the same class period in which it is handed out or whenever the instructor tells you to hand it in; whichever comes first. Enter your answer to each question in the MSDS 7330 Quiz Answer Sheet Word document. Be sure to place your name and today's date in the Quiz Answer Sheet, and place your last name and the unit number at the beginning of the file name. For example, the filename for the quiz answer sheet for Unit 6 for Daniel Engels should be *Engels6MSDS7330QuizAnswerSheet.docx*.

For one question, in the Quiz Answer Sheet write out the explanation why the answer is correct. Your chosen question should be a different question from all other students in the session.

Your answer Word document should be submitted on the 2DS system for the quiz number equal to the unit number. For example, the quiz for Unit 6 should be submitted for Quiz 6.

1) To replace the relation 'table' with some other relation, the initial step to be carried out is
   a) TRUNCATE TABLE table;
   b) DROP TABLE table;
   c) DELETE FROM table;
   d) REPLACE table newTable;
2) With SQL, how do you select all the records from a table named 'Faculty' where the value of the column 'FirstName' starts with the letter 'A'?
   a) SELECT * FROM Faculty WHERE FirstName='A';
   b) SELECT * FROM Faculty WHERE FirstName='%A%';
   c) SELECT * FROM Faculty WHERE FirstName LIKE '%A';
   d) SELECT * FROM Faculty WHERE FirstName LIKE A%';
3) What phrase best describes the purpose of the following SQL query?
   SELECT AVG (salary)
   FROM instructor;
   a) Find the average salary of all instructors.
   b) Find the average salary of all instructors grouped by department.
   c) Find the average salary of some instructors.
   d) Find all instructors with a salary greater than average.
4) Which of the following is an appropriate SQL query for finding the average salary for instructors in each department?
   a) SELECT deptName, AVG (salary)
      FROM instructor
      WHERE salary $>$ 42000;
   b) SELECT AVG (salary)
      FROM instructor
      GROUP BY deptName;
   c) SELECT deptName, AVG (salary)
      FROM instructor
      GROUP BY deptName;
   d) SELECT deptName, AVG (salary)
      FROM instructor
      WHERE deptName = instructor.deptName;
5) Which of the following can be used as a primary key entry of the *instructor* relation.
   a) deptName
   b) name
   c) ID
   d) All of the above.
   e) None of the above.

6) What does the following SQL query return?
SELECT deptName, AVG (salary)
FROM instructor
GROUP BY deptName
HAVING AVG (salary) $>$ 42000;
   a) A relation containing the average salary of all instructors with a salary greater than 42000.
   b) A relation containing the average salary for all departments.
   c) A relation containing the average salary of all instructors with a salary greater than 42000 grouped by department name.
   d) A relation containing the average salary of all instructors within a department where the average salary is greater than 42000.
7) SELECT instructor.*
FROM instructor, teaches
WHERE instructor.ID= teaches.ID;
This query does which of the following operation?
   a) All attributes of *instructor* and *teaches* are selected
   b) All attributes of *instructor* are selected on the given condition
   c) All attributes of *teaches* are selected on given condition
   d) Only the some attributes from *instructor* and *teaches* are selected
8) SELECT name
FROM instructor
WHERE salary $<=$ 100000 and salary $>=$ 90000;
This query can be replaced by which of the following?
   a) SELECT name FROM instructor WHERE salary BETWEEN 90000 AND 100000;
   b) SELECT name FROM instructor WHERE salary $<=$ 90000 AND salary $>=$ 100000;
   c) SELECT name FROM employee WHERE salary BETWEEN 90000 AND 100000;
   d) SELECT name FROM instructor WHERE salary BETWEEN 100000 AND 90000;
9) Which join refers to join records from the right table that have no matching key in the left table are include in the result set:
   a) Left outer join
   b) Right outer join
   c) Full outer join
   d) Half outer join
10) Which of the join operations do not preserve non matched tuples?
   a) Left outer join
   b) Right outer join
   c) Inner join
   d) Natural join
11) How many tables may be included with a join?
   a) One
   b) Two
   c) Three
   d) All of the above.
   e) None of the above.
12) A CASE SQL statement is which of the following?
   a) A way to establish an IF-THEN-ELSE in SQL.
   b) A way to establish a loop in SQL.
   c) A way to establish a data definition in SQL.
   d) All of the above.
   e) None of the above.
13) The SQL keyword BETWEEN is used:
   a) for ranges.
   b) to limit the columns displayed.
   c) as a wildcard.
   d) None of the above is correct.
14) How can you change ‘Smith’ into ‘Engels’ in the ‘LastName’ column in the Faculty table?
   a) MODIFY Faculty SET LastName=‘Engels’ WHERE LastName=‘Smith’
   b) UPDATE Faculty SET LastName=‘Engels’ WHERE LastName=‘Smith’
   c) MODIFY Faculty SET LastName=‘Smith’ INTO LastName=‘Engels’
   d) UPDATE Faculty SET LastName=‘Smith’ INTO LastName=‘Engels’
15) Which SQL statement is used to return only different values?
   a) SELECT UNIQUE
   b) SELECT DISTINCT
   c) SELECT DIFFERENT
   d) SELECT ONLY
16) With SQL, how can you return all the records from a table named ‘Faculty’ sorted descending by ‘FirstName’?
   a) SELECT * FROM Faculty ORDER FirstName DESC
   b) SELECT * FROM Faculty SORT ’FirstName’ DESC
   c) SELECT * FROM Faculty ORDER BY FirstName DESC
   d) SELECT * FROM Faculty SORT BY ’FirstName’ DESC
17) With SQL, how can you return the number of records in the ‘Students’ table?
   a) SELECT COUNT(*) FROM Students
   b) SELECT COUNT() FROM Students
   c) SELECT COUNT(LastName) FROM Students
   d) SELECT COLUMNS(*) FROM Students