**44-560 Adv Topics in DB Systems Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Exam 03 Part 1 (40 points) KEY** *please print*

**Multiple choice (2 points each).**  Write the letter corresponding to the BEST correct answer on your answer sheet (or mark on marksense card).

***Select only ONE answer for each question. If you select more than one answer, the entire question will be counted as wrong.***

1. The statement SELECT \* FROM T1, T2 produces a(n) \_\_\_\_\_.
   1. outer join
   2. natural join
   3. inner join
   4. cartesian product
2. A(n) \_\_\_\_\_ will select only the rows where the foreign key from one table matches the primary key from a second table.
   1. outer join
   2. inner join
   3. full join
   4. cartesian product
3. a \_\_\_\_\_ is a query inside a query.
   1. join
   2. range query
   3. set query
   4. subquery
4. In Oracle, the \_\_\_\_\_ function converts a date to a character string.
   1. convert()
   2. to\_char()
   3. to\_date()
   4. to\_string()
5. \_\_\_\_\_ is a relational set operator.
   1. all
   2. exists
   3. minus
   4. plus
6. The \_\_\_\_\_ query combines rows from two queries and excludes duplicates.
   1. intersect
   2. minus
   3. union
   4. union all
7. The Oracle equivalent to an MS Access AutoNumber is a(n) \_\_\_\_\_.
   1. auto-number
   2. sequence
   3. to\_number function
   4. trigger
8. The \_\_\_\_\_ pseudo-column is used to select the next value from a sequence.
   1. currval
   2. get\_next
   3. next
   4. nextval
9. A row-level trigger requires use of the \_\_\_\_\_ phrase. This type of trigger is executed once for each row affected by the triggering statement.
   1. for all rows
   2. for all statements
   3. for each row
   4. for each statement
10. The \_\_\_\_\_ statement can be used to combine rows from two queries, returning only the rows that appear in both sets
    1. intersect
    2. minus
    3. union
    4. union all
11. A(n) \_\_\_\_\_ subquery is a subquery that executes once for each row in the outer query.
    1. complex
    2. correlated
    3. nested
    4. outer
12. To use JDBC, you must import classes from the \_\_\_\_\_ package.
    1. java.jdbc
    2. java.persistence
    3. java.sequel
    4. java.sql
13. When using JDBC, SQL statements are executed within the context of a(n) \_\_\_\_\_ object.
    1. Connection
    2. DriverManager
    3. SQLObject
    4. Trigger
14. Which of the following interfaces is used to execute stored procedures?
    1. CallableStatement
    2. PreparedStatement
    3. Statement
    4. StoredProcedureStatement
15. Which of the following interfaces allow for parameters to be passed?
    1. Statement, PreparedStatement, and CallableStatement
    2. PreparedStatement and CallableStatement only
    3. CallableStatement only
    4. PreparedStatement only
16. The executeQuery method returns a(n) \_\_\_\_\_.
    1. boolean value
    2. int value
    3. ArrayList
    4. ResultSet
17. To guard against SQL injection
    1. use parameterized input with stored procedures
    2. validate all user input
    3. avoid the use of parameters
    4. both a) and b)
18. Sequences in oracle are tied to a particular table or column; if you delete the associated table or column, the sequence is automatically deleted.
    1. true
    2. false
19. If an error is generated by your PL/SQL block, use \_\_\_\_\_ to display the errors.
    1. display errors
    2. list errors
    3. set erroroutput on
    4. show errors
20. Assume you are using the UNION operator to combine the results from two tables with identical structure, CUSTOMER and CUSTOMER\_2. The CUSTOMER table contains 20 rows, while the CUSTOMER\_2 table contains 12 rows. Customers Dunne and Olowski are included in the CUSTOMER table as well as in the CUSTOMER\_2 table. How many records are returned when using the UNION operator?
    1. 12
    2. 20
    3. 30
    4. 32