**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. A(n) \_\_\_\_\_ subquery is a subquery that executes once for each row in the outer query.
   1. complex
   2. correlated
   3. nested
   4. outer
2. To use JDBC, you must import classes from the \_\_\_\_\_ package.
   1. java.jdbc
   2. java.persistence
   3. java.sequel
   4. java.sql
3. When using JDBC, SQL statements are executed within the context of a(n) \_\_\_\_\_ object.
   1. Connection
   2. DriverManager
   3. SQLObject
   4. Trigger
4. Which of the following interfaces is used to execute stored procedures?
   1. CallableStatement
   2. PreparedStatement
   3. Statement
   4. StoredProcedureStatement
5. 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
6. The executeQuery method returns a(n) \_\_\_\_\_.
   1. boolean value
   2. int value
   3. ArrayList
   4. ResultSet
7. 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)
8. 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
9. 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
10. 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
11. The statement SELECT \* FROM T1, T2 produces a(n) \_\_\_\_\_.
    1. outer join
    2. natural join
    3. inner join
    4. cartesian product
12. 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
13. a \_\_\_\_\_ is a query inside a query.
    1. join
    2. range query
    3. set query
    4. subquery
14. In Oracle, the \_\_\_\_\_ function converts a date to a character string.
    1. convert()
    2. to\_char()
    3. to\_date()
    4. to\_string()
15. \_\_\_\_\_ is a relational set operator.
    1. all
    2. exists
    3. minus
    4. plus
16. The \_\_\_\_\_ query combines rows from two queries and excludes duplicates.
    1. intersect
    2. minus
    3. union
    4. union all
17. The Oracle equivalent to an MS Access AutoNumber is a(n) \_\_\_\_\_.
    1. auto-number
    2. sequence
    3. to\_number function
    4. trigger
18. The \_\_\_\_\_ pseudo-column is used to select the next value from a sequence.
    1. currval
    2. get\_next
    3. next
    4. nextval
19. 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
20. 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