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Final Exam Instructions

1. Time allowed: **1 hour**

2. Attempts per question:

- One attempt - For True/False questions
- Two attempts - For any question other than True/False

3. Clicking the "**Final Check**" button when it appears, means your submission is **FINAL**. You will **NOT** be able to resubmit your answer for that question ever again

IMPORTANT: Do not let the time run out and expect the system to grade you automatically. You must explicitly submit your answers, otherwise they would be marked as incomplete.

QUESTION 1 (1/1 point)

Which R concept maps to an RDBMS database?

☐ table

☒ none ✓

☐ column (attribute)

☐ row (tuple)

☐ schema

You have used 2 of 2 submissions

QUESTION 2 (1/1 point)

R has difficulty with which of the following. Choose all that are applicable.

☒ manipulating large datasets

☐ performing data analysis

☐ performing data visualization

☒ providing concurrent access to data



You have used 2 of 2 submissions

QUESTION 3 (1/1 point)

Which R concept maps to an RDBMS row or tuple?

☐ table

☐ none

☒ observation ✓

☐ variable

☐ schema

You have used 2 of 2 submissions

QUESTION 4 (1/1 point)

True or False? RJDBC does not support substitution of arguments in SQL statements

☒ False ✓

☐ True

You have used 1 of 1 submissions

QUESTION 5 (1/1 point)

Which function returns platform details about numeric types and limits?

☐ odbcGetInfo()

☐ sqlTables()

☒ R.Machine ✓

☐ sqlColumns()

You have used 2 of 2 submissions

QUESTION 6 (1 point possible)

Which of the following statements are true? Choose all that are applicable.

- ☒ The saveRDS() and readRDS() functions can be used to store and retrieve a single R object, respectively
- ☐ The save.image() function preserves all of the images in your current R workspace.
- ☐ The save() function persists single objects in R dataframes.
- ☒ Character data in R will be mapped to either a fixed sized CHARACTER column or a variable size VARCHAR column in a database.
- ☒ R can retrieve dataframes that are stored in binary format



You have used 2 of 2 submissions

QUESTION 7 (1/1 point)

Which function can be used to call stored procedures from R?

- ☐ sqlSelect()
- ☐ sqlRQuery()
- ☒ sqlQuery() ✓
- ☐ sqlStoredProc()
- ☐ none of the above

You have used 2 of 2 submissions

QUESTION 8 (1/1 point)

True or False? RJDBC is a package implementing a DBI in R on the basis of JDBC

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☐ False

☒ True 

You have used 1 of 1 submissions

QUESTION 9 (1 point possible)

To preserve the integrity of the data as it is analyzed using R, as the data is queried from a relational database into an R dataframe it is important to understand the data types used to store the data in the database. Which of the following commands, statements, or functions provides the column names, data types, precision/size, and whether or not null values are allowed? (select all that apply)

☐ DESCRIBE command

☐ odbcGetInfo() function

☒ odbcGetTypeInfo() function

☒ sqlColumns() function

☐ SQL SELECT statement

✖

You have used 2 of 2 submissions

QUESTION 10 (1 point possible)


True or False. There are optional parameters available with the sqlTables() function to limit the results to only certain types of tables or table object names can be limited using wildcard characters.

☒ False 

☐ True

You have used 1 of 1 submissions

QUESTION 11 (1 point possible)

Commonly used visualization for database modelling involves the use of  [Cookie Preferences](#)

☒ Logical models

☐ Physical models

☒ Entity- Relationship or ER diagrams

☒ Database schemas

☐ Flowchart diagrams



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QUESTION 12 (1/1 point)

Which statement is false?

☐ OUTPUT parameters cannot be returned from a stored procedure using RODBC, however result set can be returned.

☒ The sqlUpdate() function can be used to push the updated data to the R dataframe where it originally came from. ✓

☐ Stored procedures are valuable tools for performing analysis on data that is stored in a relational database server and they can be used to dramatically reduce the time required to perform data intensive tasks as they execute on the database server itself.

☐ The sqlUpdate() function can be used to modify data in a database from R, even if not recommended.

☐ It is recommended to set the errors parameter to false and check for a -1 return value to properly handle any errors.

You have used 2 of 2 submissions

QUESTION 13 (1/1 point)

Which statements describe stored procedures? Choose all that are applicable.

☒ stored procedures are data-centric code modules that are stored and executed on the database server

☐ stored procedures must be coded only by experienced DBAs

☐ stored procedures do not allow dynamic parameters

☒ stored procedures can be created using one of many different stored procedure languages

☒ stored procedures eliminate network traffic delay because processing is performed on the database server



You have used 2 of 2 submissions

QUESTION 14 (1 point possible)

True or False. A full-table select can be accomplished using the sqlFetch() function. The function will dynamically create a dataframe and populate it with the data from the database server.

☒ False ✗

☐ True

You have used 1 of 1 submissions

QUESTION 15 (1/1 point)

Which statements are true about in-database analytics? Choose all that are applicable.

☐ in-database analytics involves processing of data and performing analysis in the analytic application itself

☒ IBM dashDB supports in-database analytics with R

☒ In-database Analytics refers to processing the data and performing of analysis within the database itself, where data is stored

☒ ibmdbr is an open source R library that facilitates in-database analytics from ibm databases like dashDB

☒ in-database analytics reduces network traffic and data movement because analytics processing is performed on the database server



You have used 2 of 2 submissions