Tutorial Letter 105/2/2018

Database Practice

ICT3722

Semester 2

School of Computing

IMPORTANT INFORMATION:

This tutorial letter contains the questions for Assignment 4.

Due date 21 September 2018

Unique Number: 833855

ICT3722-18-S2-Ass4

Justlee books database is used for all assignments.

Use the same tables and data used for assignment 1.

Read the question and if required, run the SQL against the tables and data.

Select the most relevant answer from the list of choices provided.

When you are done, logon to myUNISA, select the module code: ICT3722, select

Assignment 4. Complete the online MCQ. When done submit the assignment.

Keep in mind that you cannot go back once you've submitted the assignment.

Keep a copy of your solutions should there be any gueries afterwards.

Please answer the following 15 question

1. Which of the following terms represents a collection of fields?

- 1. record
- 2. field
- 3. character
- 4. file
- 2. Which of the following terms best describes where a group of characters that represents a customer's address would be stored in the logical design?
 - 1. record
 - 2. field
 - 3. file
 - 4. database
- 3. Which of the following is used to create and maintain the physical database?
 - 1. Data mining
 - 2. Database Management System (DBMS)
 - 3. E-R Model
 - 4. Systems Development Life Cycle (SDLC)
- 4. To indicate which database table contains the data to be selected by a query, the table name should be listed in the ____ clause.
 - 1. FROM
 - 2. SELECT
 - 3. HAVING
 - 4. WHERE
- 5. Which of the following commands can be used to view the structure of a table?
 - 1. SELECT
 - 2. CONCATENATION

3. DESCRIBE

- 4. none of the above
- 6. Which of the following statements is correct?
 - 1. Numeric columns are listed first in the output, followed by character columns.
 - 2. The columns will be listed in the results in the same order they are stored in the database table.
 - 3. The columns will be listed in the results in the same order they are listed in the SELECT clause of the SELECT statement.
 - 4. Character columns are listed first in the output, followed by numeric columns.
- 7. Which of the following datatypes refers to variable-length character data, where n represents the maximum length of the column?
 - 1. VARCHAR2(n)
 - 2. BFILE
 - 3. CHAR(n)
 - 4. LONG
- 8. How can constraints be added to a table?
 - 1. both 2 and 3
 - 2. as part of the ALTER TABLE command
 - 3. as part of the CREATE TABLE command
 - 4. as part of the PRIMARY KEY command
- 9. What is the maximum width that can be assigned to a DATE column?
 - 1.1
 - 2.8
 - 3. 12
 - 4. none of the above
- 10. Which of the following is a valid table name?
 - 1. CHAR
 - 2. MYTABLE
 - 3. SELECT
 - 4. DISTINCT
- 11. Which of the following is the standard abbreviation for the constraint FOREIGN KEY?
 - 1. fk
 - 2. fkey
 - 3. fky
 - 4. frk

- 12. The UNIQUE constraint differs from the PRIMARY KEY constraint in what way?
 - 1. The UNIQUE constraint does not allow NULL values.
 - 2. The UNIQUE constraint allows NULL values.
 - 3. The UNIQUE constraint can be created at either the column level or the table level.
 - 4. The UNIQUE constraint ensures that a specific condition is true before a data value is added to a table.
- 13. Which keywords create a shared lock on a table to prevent another user from making changes to data in specified columns?
 - 1. SELECT...LOCK
 - 2. SELECT...COMMIT
 - 3. SELECT...FOR CHANGE
 - 4. SELECT...FOR UPDATE
- 14. Which of the following commands allows a user to "undo" uncommitted changes to data?
 - 1. UNDO
 - 2. UNCOMMIT
 - 3. ROLLBACK
 - 4. UNLOCK
- 15. Which of the following is a valid statement?
 - 1. When rows are added to a table, the column names can be omitted if an entry is only being made into the first column.
 - 2. When rows are added to a table, the column names can be omitted if the values are listed in the same order as the columns are listed in the table.
 - 3. If rows are being added to a table with the UPDATE command, an entry must be made into each column contained in the table.
 - 4. none of the above
- 16. Which of the following is not a valid SQL command?
 - 1. INSERT INTO acctmantable

AS (SELECT amid, amname, amedate, region FROM acctmanager)
WHERE amedate <= SYSDATE);

2. INSERT INTO acctmantable

SELECT amid, amname, amedate, region FROM acctmanager WHERE amedate <= SYSDATE;

3. INSERT INTO acctmantable (SELECT amid, amname, amedate, region FROM acctmanager

WHERE amedate <= SYSDATE);

- 4. none of the above
- 17. Which of the following commands is used to add rows to a table?
 - 1. INSERT
 - 2. UPDATE
 - 3. ADD
 - 4. ENTER
- 18. Based on the structure of the CUSTOMERS table, which of the following is a valid SQL statement?
 - CREATE PUBLIC INDEX customers_name_idx ON customers (lastname, firstname);
 - 2. CREATE INDEX customers_name_idx ON customers (lastname, firstname);
 - CREATE PUBLIC INDEX customers_name_idx ON customers (lastname);
 - CREATE PUBLIC INDEX customers_name_idx FOR customers (lastname);

Contents of the PROMOTION table



| GIFT | MINRETAIL | MAXRETAIL | |
|---------------|-----------|-----------|--|
| | | | |
| BOOKMARKER | 9 | 12 | |
| BOOK LABELS | 12.01 | 25 | |
| BOOK COVER | 25.01 | 56 | |
| FREE SHIPPING | 56.01 | 999.99 | |

- 19. Based on the contents of the PROMOTION table, which of the following will correctly change the value assigned to the MAXRETAIL column for Free Shipping to 75.00?
 - INSERT INTO promotion (maxretail) VALUES (75) WHERE gift = 'FREE SHIPPING';
 - 2. UPDATE promotion (maxretail) SET = 75

WHERE gift = 'FREE SHIPPING';

- 3. UPDATE promotion

 SET maxretail = 75

 WHERE gift = 'FREE SHIPPING';
- 4. none of the above

Contents of the PUBLISHER table

| 🚣 Oracle SQL*Plus | | |
|-------------------------------|-----------------|--------------|
| File Edit Search Options Help | | |
| PUBID NAME | CONTACT | PHONE |
| 1 PRINTING IS US | TOMMIE SEYMOUR | 000-714-8321 |
| 2 PUBLISH OUR WAY | JANE TOMLIN | 010-410-0010 |
| 3 AMERICAN PUBLISHING | DAUID DAUIDSON | 800-555-1211 |
| 4 READING MATERIALS INC. | RENEE SMITH | 800-555-9743 |
| 5 REED-N-RITE | SEBASTIAN JONES | 800-555-8284 |

- 20. Which of the following commands will delete only publisher 4 from the PUBLISHER table?
 - 1. DELETE FROM publisher;
 - 2. DELETE pubid = 4 FROM publisher;
 - 3. DELETE FROM publisher WHERE publid = 4;
 - 4. DROP FROM publisher WHERE pubid = 4;
- 21. Which of the following statements about COMMIT and ROLLBACK commands is incorrect?
 - 1. All DML commands (INSERT, UPDATE, DELETE) are explicitly committed and cannot be rolled back.
 - 2. All DDL commands (CREATE, TRUNCATE, ALTER TABLE) are explicitly committed and cannot be rolled back.
 - 3. A ROLLBACK command will reverse all DDL operations performed since the last COMMIT was performed.
 - 4. all of the above

Structure of the CUSTOMERS table

| ≛ Oracle SQL*Plus | | |
|--|----------|--|
| File Edit Search Options Help | | |
| Name | Null? | Туре |
| CUSTOMER# LASTNAME FIRSTNAME ADDRESS CITY STATE ZIP REFERRED | NOT HULL | NUMBER(4) VARCHAR2(10) VARCHAR2(10) VARCHAR2(20) VARCHAR2(12) VARCHAR2(12) VARCHAR2(2) VARCHAR2(5) NUMBER(4) |

- 22. Which of the following commands is used to establish a user account?
 - 1. CREATE USER username IDENTIFIED BY password;
 - 2. CREATE USERNAME username IDENTITY password;
 - 3. CREATE USER username PASSWORD password;

- 4. CREATE NEW USER username IDENTIFIED BY password;
- 23. Which command will establish a new role?
 - 1. CREATE NEW ROLE rolename;
 - 2. CREATE ROLE rolename;
 - 3. CREATE ROLE rolename FOR username:
 - 4. CREATE ROLE rolename WITH privilege;
- 24. The ____ command is used to revoke a role.
 - 1. DROP rolename FROM username;
 - 2. ALTER rolename REVOKE username:
 - 3. REVOKE rolename FROM username;
 - 4. DROP rolename REVOKE FROM username;
- 25. Which of the following refers to the process of ensuring that individuals trying to access the system are who they say they are, thus preventing them from illegally accessing data?
 - 1. authorization
 - 2. individualization
 - 3. authentication
 - 4. accreditation

Contents of BOOKS table

| ± Oracle So | (L*Plus | | | | |
|--------------|--------------------------------|-----------|-------|-------|--------|
| File Edit Se | arch Options Help | | | | |
| ISBN | TITLE | PUBDATE | PUBID | COST | RETAIL |
| 1059831198 | BODYBUILD IN 10 MINUTES A DAY | 21-JAN-01 | 4 | 18.75 | 30.95 |
| 0401140733 | REVENGE OF MICKEY | 14-DEC-01 | 1 | 14.2 | 22 |
| 4981341710 | BUILDING A CAR WITH TOOTHPICKS | 18-MAR-02 | 2 | 37.8 | 59.95 |
| 8843172113 | DATABASE IMPLEMENTATION | 04-JUN-99 | 2 | 31.4 | 55.95 |
| 3437212491 | COOKING WITH MUSHROOMS | 28-FEB-00 | 4 | 12.5 | 19.95 |
| 3957136468 | HOLY GRAIL OF ORACLE | 31-DEC-01 | 3 | 47.25 | 75.95 |
| 1915762492 | HANDCRANKED COMPUTERS | 21-JAN-01 | 3 | 21.8 | 25 |
| 995978932 | E-BUSINESS THE EASY WAY | 01-MAR-02 | 2 | 37.9 | 54.5 |
| 2491748320 | PAINLESS CHILD-REARING | 17-JUL-00 | 5 | 48 | 89.95 |
| 0299282519 | THE WOK WAY TO COOK | 11-SEP-00 | 4 | 19 | 28.75 |
| 811794939 | BIG BEAR AND LITTLE DOVE | 08-NOV-01 | 5 | 5.32 | 8.95 |
| 013214987 | HOW TO GET FASTER PIZZA | 11-NOV-02 | 4 | 17.85 | 29.95 |
| 924738100 | HOW TO MANAGE THE MANAGER | 89-MAY-99 | 1 | 15.4 | 31.95 |
| 2147428890 | SHORTEST POEMS | 01-MAY-01 | 5 | 21.85 | 39.95 |

- 26. Based upon the contents of the BOOKS table in the accompanying figure, which of the following SQL statements will retrieve all books published by the publisher assigned Pubid 1?
 - 1. SELECT * FROM books WHERE pubid LIKE "1";
 - 2. SELECT * FROM books WHERE pubid > 1;
 - 3. SELECT * FROM books WHERE pubid = 1;
 - 4. both 1 and 2
- 27. A subquery must include a(n) ____ clause.

- 1. SELECT
- 2. both 1 and 3
- 3. WHERE
- 4. FROM
- 28. Based upon the contents of the BOOKS table in the accompanying figure, which of the following queries will return all books that cost at least \$25.00?
 - 1. SELECT * FROM books WHERE cost >= 25.00;
 - SELECT * FROM books WHERE cost > \$25.00;
 - 3. SELECT * FROM books WHERE cost >= \$25.00;
 - 4. none of the above
- 29. When the WHERE clause contains multiple types of operators, which of the following is resolved last?
 - 1. arithmetic operations
 - 2. logical operators
 - 3. comparison operators
 - 4. search patterns
- 30. Which of the following operators can be used to combine search conditions?
 - 1. IS NOT NULL
 - 2. =
 - 3. AND
 - 4. none of the above
- 31. Which of the following search patterns would find dates occurring only in the year 2003?
 - 1. %03%
 - 2. *03
 - 3. %03
 - 4. _03%
- 32. A complete query nested inside another query is called a(n) _____
 - 1. inner view
 - 2. subquery
 - 3. child view
 - 4. all of the above

Structure of the ORDERS table



Structure of the CUSTOMERS table



- 33. Which of the following SQL statements will display all customers who have not recently placed an order?
 - SELECT customer# FROM customers UNION SELECT customer# FROM orders;
 - 2. SELECT customer# FROM customers

MINUS

SELECT customer# FROM orders;

3. SELECT customer# FROM orders INTERSECT

SELECT customer# FROM customers;

 SELECT customer# FROM orders MINUS SELECT customer# FROM customers:

34. What is the maximum number of columns or character strings that can be combined through a single CONCAT function?

- 1. two
- 2. three
- 3. four
- 4. eight

of

| 35. | Which of the following functions will round the numeric data to no decimal places? 1. ROUND(34.21, 0) 2. ROUND(34.21, -1) 3. ROUND(34.21, NONE) 4. ROUND(34.21, 1) |
|-----|--|
| 36. | Which of the following functions can be used to determine the date one month after a specified date? 1. ADD_MONTHS 2. ADD_MONTH 3. ONE_MONTH 4. NEXT_MONTH |
| 37. | Which of the following functions can be used to determine the next occurrence a specific day of the week after a given date? 1. NEXT_DAY 2. DATE_NEXT 3. NEXT_DATE 4. NEXT_DDD |
| 38. | Which of the following is not considered a group function? 1. MIN 2. TRUNC 3. COUNT 4. SUM |
| 39. | The SUM function can only be used with data. 1. date 2. character 3. numeric 4. alphanumeric |
| 40. | The function calculates the average of the numeric values in a specified column. 1. AVG 2. AVERAGE 3. MEAN 4. AG |
| 41. | Which of the following queries will display data from both the ORDERS and CUSTOMERS tables? |

SELECT * FROM orders, customers;
 SELECT lastname, firstname, order#

FROM orders NATURAL JOIN customers;

- SELECT lastname, firstname, order#
 FROM orders, customers
 WHERE orders.customer# = customers.customer#;
- 4. all of the above
- 42. Which of the following describes a type of view that is based on a subquery that retrieves or derives data from one or more tables, and may also contain functions or grouped data?
 - 1. simple view
 - 2. inline view
 - 3. complex view
 - 4. "TOP-N" analysis
- 43. Based upon the contents of the BOOKS table in the accompanying figure, which of the following queries will retrieve all books published in 2001?
 - 1. SELECT * FROM books WHERE pubdate BETWEEN '01-JAN-01' AND '31-DEC-01';
 - 2. Both 1 and 3
 - 3. SELECT * FROM books WHERE pubdate LIKE '%01';
 - 4. SELECT * FROM books WHERE pubdate < '01-JAN-01' AND pubdate > '31-DEC-01';
- 44. Which of the following statements about views is incorrect?
 - 1. Views are database objects that actually store data.
 - 2. Views restrict users' access to sensitive data.
 - 3. Views assist users who do not have the training to issue complex SQL inquiries.
 - 4. A view can be referenced in a SELECT...FROM statement, just like any table.
- 45. Which type of view is created by the following command?

CREATE VIEW OR REPLACE outstanding AS SELECT customer#, order#, orderdate, shipdate FROM orders WHERE shipdate IS NULL;

- 1. complex
- 2. simple
- 3. inline
- 4. none of the above