

1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	11.00

You query the database and return the value 40. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2, 2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
(*)
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

Correct

You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

7. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

Mark for Review

(1) Points

1200

1282

1282.25

1300 (*)

Correct

9. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

10. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

11. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

Correct

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Incorrect. Refer to Section 1

16. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

SELECT TO_CHAR(price, '\$99,900.99') FROM product; (*)

SELECT TO_CHAR(price, "\$99,900.99") FROM product;

SELECT TO_CHAR(price, '\$99,990.99') FROM product;

SELECT TO_NUMBER(price, '\$99,900.99') FROM product;

Correct

17. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

18. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

(*)

```
SELECT hire_date(TO_CHAR 'Month DD', 'YYYY')
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')
FROM employees;
```

Incorrect. Refer to Section 2

19. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

20. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')  
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees;
```

(*)

Incorrect. Refer to Section 2

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

22. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

23. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
FROM student_accounts;
(*)
```

```
SELECT NVL(tuition_balance, 0), NVL (housing_balance), tuition_balance + housing_balance "Balance Due"
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER (housing_balance, 0), tuition_balance +
housing_balance "Balance Due"
FROM student_accounts;
```

Incorrect. Refer to Section 2

24. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Correct

26. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
(*)
```

Correct

27. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
(*)
```

```
SELECT cust_id, company, total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

Correct

28. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;  
(*)
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
Q FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

29. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect. Refer to Section

30. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

31. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Correct

32. Evaluate this SELECT statement:

```
SELECT p.player_id,m.last_name,m.first_name,t.team_name
```

```
FROM player p
```

```
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)
```

```
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Correct

33. Which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Incorrect. Refer to Section 3

34. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Incorrect. Refer to Section 4

35. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

36. Which of the following best describes a natural join? Mark for Review

(1) Points

A join between two tables that includes columns that share the same name, datatypes and lengths (*)

A join that produces a Cartesian product

A join between tables where matching fields do not exist

A join that uses only one table

Correct

37. Which SELECT clause creates an equijoin by specifying a column name common to both tables?
Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Incorrect. Refer to Section 4

39. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers
(custid varchar2(5),
companyname varchar2(30),
contactname varchar2(30),
address varchar2(30),
city varchar2(20),
state varchar2(30),
phone varchar2(20),
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders
(orderid varchar2(5) constraint pk_orders_01 primary key,
orderdate date,
total number(15),
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname
FROM customers
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total
FROM orders o
NATURAL JOIN customers c ON o.custid = c.custid
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total
FROM orders o
JOIN customers c ON o.custid = c.custid
WHERE city = 'Nashville';
(*)
```

```
SELECT orderid, orderdate, total
FROM orders
WHERE city = 'Nashville';
```

Correct

40. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name
FROM customers c
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

44. If a select list contains both a column as well as a group function then what clause is required?

Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

45. Evaluate this SELECT statement:

```
SELECT MAX(salary), dept_id
```

```
FROM employee
```

```
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Incorrect. Refer to Section 5

46. Which statement about group functions is true? Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

Incorrect. Refer to Section 5

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"  
FROM employees  
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Incorrect. Refer to Section 5

48. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

49. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
```

WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';

(*)

SELECT AVG(payment_amount)

FROM payment;

SELECT SUM(payment_amount)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';

SELECT AVG(payment_amount)

FROM payment

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

Correct

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

51. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

```
SELECT SUM(order_dt)
```

```
SELECT SUM(order_amount) (*)
```

```
WHERE MAX(order_dt) = order_dt
```

```
SELECT location_id, MIN(AVG(order_amount)) (*)
```

Incorrect. Refer to Section 5

52. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Incorrect. Refer to Section 5

53. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

Correct

54. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

55. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

56. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	
--------	--------	-------	--

You issue this SELECT statement:

```
SELECT COUNT(category)
```

FROM styles;

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Incorrect. Refer to Section 5

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
--------------	----------	------------	-------	----------

890898	847589	848399	8.99	0.10
--------	--------	--------	------	------

768385	862459	849869	5.60	0.05
--------	--------	--------	------	------

867950	985490	945809	5.60	
--------	--------	--------	------	--

954039	439203	438925	5.25	0.15
--------	--------	--------	------	------

543949	349302	453235	4.50	
--------	--------	--------	------	--

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Incorrect. Refer to Section 5

58. Group functions can avoid computations involving duplicate values by including which keyword?

Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Incorrect. Refer to Section 5

59. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM products;
```

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

Incorrect. Refer to Section 5

60. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

61. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
```

```
FROM manufacturer
```

```
GROUP BY location_id;
```

(*)

```
SELECT location_id, COUNT(DISTINCT type)
```

```
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
```

```
FROM manufacturer
```

```
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Correct

62. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

```
SELECT
FROM
WHERE
ORDER BY
HAVING
```

```
SELECT
FROM
HAVING
GROUP BY
WHERE
ORDER BY
```

SELECT
FROM
WHERE
GROUP BY
HAVING
ORDER BY
(*)

SELECT
FROM
WHERE
HAVING
ORDER BY
GROUP BY

Correct

63. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
(*)
```

```
SELECT MIN (prod_price), prod_cat
FROM products
GROUP BY MIN (prod_price), prod_cat;
```

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

Correct

64. The EMPLOYEES table contains these columns:

```
ID_NUMBER NUMBER Primary Key
NAME VARCHAR2 (30)
DEPARTMENT_ID NUMBER
SALARY NUMBER (7,2)
HIRE_DATE DATE
```

Evaluate this SQL statement:

```
SELECT id_number, name, department_id, SUM(salary)
FROM employees
WHERE salary > 25000
GROUP BY department_id, id_number, name
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Correct

65. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name
```

```
FROM employee
```

```
WHERE dept_id = 1
```

```
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

```
SELECT
```

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section

66. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points


```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

(*)

Incorrect. Refer to Section 6

67. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Incorrect. Refer to Section 6

68. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

Incorrect. Refer to Section 6

69. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);

(*)

```
SELECT *  
FROM teachers  
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
FROM teachers  
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
FROM class_assignments  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

71. The EMPLOYEES and ORDERS tables contain these columns:

EMPLOYEES

EMP_ID NUMBER(10) NOT NULL PRIMARY KEY

FNAME VARCHAR2(30)

LNAME VARCHAR2(30)

ADDRESS VARCHAR2(25)

CITY VARCHAR2(20)

STATE VARCHAR2(2)

ZIP NUMBER(9)

TELEPHONE NUMBER(10)

ORDERS

ORDER_ID NUMBER(10) NOT NULL PRIMARY KEY

EMP_ID NUMBER(10) NOT NULL FOREIGN KEY

ORDER_DATE DATE

TOTAL NUMBER(10)

Which SELECT statement will return all orders generated by a sales representative named Franklin during the year 2001?

Mark for Review

(1) Points

```
SELECT order_id, total
FROM ORDERS (SELECT emp_id FROM employees WHERE lname = 'Franklin')
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT (SELECT emp_id FROM employees WHERE lname = 'Franklin') AND order_id, total
FROM ORDERS
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT order_id, emp_id, total
FROM ORDERS
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01' AND emp_id = 'Franklin';
```

```
SELECT order_id, total
FROM ORDERS
WHERE emp_id = (SELECT emp_id FROM employees WHERE lname = 'Franklin')
AND order_date BETWEEN '01-jan-01' AND '31-dec-01';
(*)
```

Correct

72. the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect. Refer to Section 6

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

SELECT *


```
FROM employees  
WHERE supervisor_id =  
    (SELECT supervisor_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT supervisor_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT employee_id  
    FROM supervisors  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees
```

```
WHERE supervisor_id =  
  
  (SELECT employee_id  
  
   FROM employees  
  
   WHERE last_name = 'Carter');  
(*)
```

Incorrect. Refer to Section 6

74. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

76. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

77. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description  
FROM d_types  
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Incorrect. Refer to Section 6

78. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
    (SELECT customer_id  
     FROM customer  
     WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

79. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Incorrect. Refer to Section 6

80. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

81. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Incorrect. Refer

82. What would happen if you attempted to use a single-row operator with a multiple-row subquery?
Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect. Refer to Section 6

83. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

84. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name
```

```
FROM employees
```

```
WHERE salary =
```

```
(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Incorrect. Refer to Section 6

87. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Incorrect. Refer

89. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);

Incorrect. Refer to Section 7

90. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

```
UPDATE employees lname = 'cooper'  
WHERE lname = 'roper';
```

```
UPDATE employees  
SET lname = 'roper'  
WHERE lname = 'cooper';
```

```
UPDATE employees  
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Incorrect. Refer to Section 7

92. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

93. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

```
UPDATE employee
SET salary = SELECT salary
FROM employee
WHERE emp_id = 89898;
```

```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);
```

```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)
WHERE dept = 10;
```

(*)

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Correct

97. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

98. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Correct

1. You need to display each employee's name in all uppercase letters. Which function should you use?

☐ Mark for Review

(1) Points

☐ CASE

☐ UCASE

☒ UPPER (*)


☐ TOUPPER

2. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? ☐ Mark for Review

(1) Points

☐ INSTR

☐ TRUNC

 SUBSTR (*)

 CONCAT

3. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employee;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

4. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

5. Which functions can be used to manipulate character, number, and date column values? Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTH

6. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name, first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

7. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

10. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) [Mark for Review](#)

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

11. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

12. You need to display the current year as a character value (for example: Two Thousand and One). Which element would you use? Mark for Review

(1) Points

RR

YY

YYYY

YEAR (*)

13. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? [Mark for Review](#)

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

14. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS
FROM employees
WHERE department_id = 90;
```

(*)

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS
FROM employees
WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS
FROM employees
WHERE department_id = 90;
```



```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

16. Which statement concerning single row functions is true? Mark for Review
(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

17. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review
(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

18. Which three statements concerning explicit data type conversions are true?
(Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

19. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

(*)

```
SELECT hire_date(TO_CHAR('Month DD', 'YYYY'))
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')
FROM employees;
```

20. Which arithmetic operation will return a numeric value?

Mark for Review

(1) Points

```
TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)
```

`NEXT_DAY(hire_date) + 5`

`SYSDATE - 6`

`SYSDATE + 30 / 24`

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Incorrect

Incorrect. Refer to Section 2

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22. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

[Mark for Review](#)

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

24. You need to replace null values in the DEPT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

25. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect

Incorrect. Refer to Section 3

26. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

27. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect

Incorrect. Refer to Section 3

28. You need to provide a list of the first and last names of all employees who work in the Sales department who earned a bonus and had sales over \$50,000. The company president would like the sales listed starting with the highest amount first. The EMPLOYEES table and the SALES_DEPT table contain the following columns:

EMPLOYEES

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

SALES_DEPT

SALES_ID NUMBER(10) PRIMARY KEY

SALES NUMBER(20)

QUOTA NUMBER(20)

MGR VARCHAR2(30)

BONUS NUMBER(10)

EMP_ID NUMBER(10) FOREIGN KEY

Which SELECT statement will accomplish this task?

Mark for Review

(1) Points

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s.sales
FROM employees e, sales_dept s
ORDER BY sales DESC
```

WHERE e.emp_id = s.emp_id AND sales > 50000 AND s.bonus IS NOT NULL;

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
ORDER BY sales DESC
FROM employees e, sales_dept s
WHERE e.emp_id = s.emp_id AND s.bonus IS NOT NULL AND sales > 50000;
```

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
WHERE e.emp_id = s.emp_id
FROM employees e, sales_dept s AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
FROM employees e, sales_dept s
WHERE e.emp_id = s.emp_id AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

(*)

29. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
```

(*)

30. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales  
FROM customers, sales  
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

(*)

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

31. The EMPLOYEE_ID column in the EMPLOYEE table corresponds to the EMPLOYEE_ID column of the ORDER table. The EMPLOYEE_ID column in the ORDER table contains null values for rows that you need to display.

Which type of join should you use to display the data? Mark for Review

(1) Points

natural join

self-join

outer join (*)

equijoin

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

33. Which of the following best describes the function of an outer join? Mark
for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

34. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

35. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three)

Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

full outer join

36. You need to join two tables that have two columns with the same name and compatible data types. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

37. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

38. Evaluate this SELECT statement:

```
SELECT a.lname || ', ' || a.fname as "Patient", b.lname || ', ' || b.fname as "Physician", c.admission  
FROM patient a  
JOIN physician b  
ON (b.physician_id = c.physician_id);  
JOIN admission c  
ON (a.patient_id = c.patient_id);
```

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id); (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

40. For which condition would you use an equijoin query with the USING keyword?
Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);

(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

42. Which type of join returns rows from one table that have NO direct match in the other table?
Mark for Review

(1) Points

equijoin

self join

outer join (*)

natural join

43. What should be included in a SELECT statement to return NULL values from all tables?

Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

44. If a select list contains both a column as well as a group function then what clause is required?
Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), dept_id  
FROM employee  
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEE table.

The latest hire date in the EMPLOYEE table.

The hire dates in the EMPLOYEE table that contain NULL values

46. Which statement about group functions is true?

Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

48. Which group function would you use to display the total of all salary values in the EMPLOYEE table? Mark for Review

(1) Points

SUM (*)

AVG

COUNT

MAX

49. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount) (*)

WHERE MAX(order_dt) = order_dt

```
SELECT location_id, MIN(AVG(order_amount)) (*)
```

Incorrect

Incorrect. Refer to Section 5

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

51. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

52. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

53. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following?
Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

54. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

55. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

[Mark for Review](#)

(1) Points

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

56. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark
for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	

954039 439203 438925 5.25 0.15

543949 349302 453235 4.50

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_it

58. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

SELECT * FROM employees
WHERE salary > 50000;

SELECT * FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary > 50000;

(*)

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

59. Evaluate this SELECT statement:

```
SELECT COUNT(*)  
FROM products;
```

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

60. Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
HAVING AVG(salary) > 35000
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

WHERE job_id <> 69879 (*)

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000 (*)

61. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```


(*)

62. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY location_id;
```

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

3. The PLAYERS table contains these columns:

```
PLAYER_ID NUMBER PK
PLAYER_NAME VARCHAR2 (30)
TEAM_ID NUMBER
HIRE_DATE DATE
SALARY NUMBER (8,2)
```

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

65. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

66. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id  
FROM employee  
GROUP BY dept_id;
```

How are the results of this statement sorted?

Mark for Review

(1) Points

Ascending order by dept_id (*)

Descending order by dept_id

Ascending order by cumulative salary

Descending order by cumulative salary

67. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, department_id, SUM(salary)
```

```
FROM employees
```

```
WHERE salary > 25000
```

```
GROUP BY department_id, id_number, name
```

```
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect

Incorrect. Refer to Section 6

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68. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect

Incorrect. Refer to Section 6

69. Which operator can be used with a multiple-row subquery? [Mark for Review](#)

(1) Points

IN (*)

<>

=

LIKE

70. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? [Mark for Review](#)

(1) Points

```
SELECT product_name
FROM products
WHERE cost > (SELECT AVG(cost) FROM product);
```

(*)


```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```

71. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

72. You need to display all the players whose salaries are greater than or equal to John Brown's salary. Which comparison operator should you use? Mark for Review

(1) Points

=

>

<=

>= (*)

73. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

75. Which statement about the <> operator is true?

Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

76. Which operator or keyword cannot be used with a multiple-row subquery?

Mark for Review

(1) Points

ALL

ANY

= (*)

>

77. Which comparison operator would you use to compare a value to every value returned by a subquery? Mark for Review

(1) Points

SOME

ANY

ALL (*)

IN

Correct

Correct

78. Evaluate this SELECT statement:

```
SELECT player_id, name  
FROM players  
WHERE team_id IN  
(SELECT team_id  
  
FROM teams  
  
WHERE team_id > 300 AND salary_cap > 400000);
```

What would happen if the inner query returned a NULL value?

Mark for Review

(1) Points

No rows would be returned by the outer query. (*)

A syntax error in the outer query would be returned.

A syntax error in the inner query would be returned.

All the rows in the PLAYER table would be returned by the outer query.

79. What would happen if you attempted to use a single-row operator with a multiple-row subquery? Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect Incorrect. Refer to Section 6

80. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more

81. Examine the structures of the PARTS and MANUFACTURERS tables:

PARTS:

PARTS_ID VARCHAR2(25)

PK PARTS_NAME VARCHAR2(50)

MANUFACTURERS_ID NUMBER

COST NUMBER(5,2)

PRICE NUMBER(5,2)

MANUFACTURERS:

ID NUMBER

PK NAME VARCHAR2(30)

LOCATION VARCHAR2(20)

Which SQL statement correctly uses a subquery?

Mark for Review

(1) Points

```
UPDATE parts SET price = price * 1.15
WHERE manufacturers_id =
    (SELECT id
      &nbsp;FROM manufacturers
      &nbsp;WHERE UPPER(location) IN('ATLANTA ', 'BOSTON ', 'DALLAS '));
```

```
SELECT parts_name, price, cost
FROM parts
WHERE manufacturers_id !=
    (SELECT id
      &nbsp;FROM manufacturers
      &nbsp;WHERE LOWER(name) = 'cost plus');
```

```
SELECT parts_name, price, cost
FROM parts
WHERE manufacturers_id IN
    (SELECT id
      &nbsp;FROM manufacturers m
      &nbsp;JOIN part p ON (m.id = p.manufacturers_id));
```

(*)

```
SELECT parts_name
FROM
(SELECT AVG(cost)
&nbsp;FROM manufacturers)
&nbsp;WHERE cost > AVG(cost);
```

Correct

Correct

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82. Which of the following best describes the meaning of the ANY operator?
Review

[Mark for](#)

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

83. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SEL

84. Which statement about the ANY operator when used with a multiple-row subquery is true? Mark for Review

(1) Points

The ANY operator compares every value returned by the subquery. (*)

The ANY operator can be used with the DISTINCT keyword.

The ANY operator is a synonym for the ALL operator.

The ANY operator can be used with the LIKE and IN operators.

85. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

86. You need to display all the products that cost more than the maximum cost of every product produced in Japan. Which multiple-row comparison operator could you use? Mark for Review

(1) Points

>ANY (*)

NOT=ALL

IN

>IN

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
  (SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
   FROM students  
  
   WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

88. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(25)

PROD_PRICE NUMBER(3)

You want to add the following row data to the PRODUCTS table:

(1) a NULL value in the PROD_ID column

(2) "6-foot nylon leash" in the PROD_NAME column

(3) "10" in the PROD_PRICE column

You issue this statement:

```
INSERT INTO products
```

```
VALUES (null,'6-foot nylon leash', 10);
```

What row data did you add to the table?

Mark for Review

(1) Points

The row was created with the correct data in all three columns. (*)

The row was created with the correct data in two of three columns.

The row was created with the correct data in one of the three columns.

The row was created completely wrong. No data ended up in the correct columns.

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
VALUES (200, InterCargo, 0, tflanders, samerica);
```

90. You need to add a row to an existing table. Which DML statement should you use? Mark
for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

91. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? [Mark for Review](#)

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

92. What keyword in an UPDATE statement specifies the columns you want to change? Mark
for Review

(1) Points

SELECT

WHERE

SET (*)

HAVING

93. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

```
UPDATE employees  
SET cooper = 'lname'  
WHERE lname = 'roper';
```

94. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

INSERT (*)

SELECT

UPDATE (*)

95. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Incorrect

Incorrect. Refer to Section 7

96. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

Incorrect

Incorrect. Refer to Section 7

96. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

DELETE FROM products

WHERE supplier_id IN

(SELECT supplier_id

FROM suppliers

WHERE UPPER(city) = 'ATLANTA');

(*)

DELETE FROM products

WHERE UPPER(city) = 'ATLANTA';

DELETE FROM products

WHERE supplier_id =

(SELECT supplier_id

FROM suppliers

WHERE UPPER(city) = 'ATLANTA');

DELETE FROM products

WHERE supplier_id IN

(SELECT supplier_id

FROM suppliers

WHERE UPPER(city) = 'ALANTA');

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for

98. What would happen if you issued a DELETE statement without a WHERE clause? Mark
for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Incorrect

Incorrect. Refer to Section 7

99. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

```
UPDATE employee
SET salary = SELECT salary
FROM employee
WHERE emp_id = 89898;
```

```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);
```

```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)
WHERE dept = 10;
```

(*)

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);

100. Which of the following represents the correct syntax for an INSERT statement? Mark for Review

(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES ('3178', 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777');
(*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

3. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

5. You issue this SQL statement:

```
SELECT INSTR ('organizational sales', 'al')  
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY
```

FROM employees;

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

7. Evaluate this SELECT statement:

SELECT LENGTH(email)

FROM employee;

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

Correct

9. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employee;  
(*)
```

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employee;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employee;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employee;
```

Incorrect. Refer to Section 1 Lesson 3

10. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)  
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

750 (*)

751

751.3

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. Which SELECT statement will NOT return a date value? Mark for Review

(1) Points

```
SELECT (30 + hire_date) + 1440/24  
FROM employees;
```

```
SELECT (SYSDATE - hire_date) + 10*8  
FROM employees;  
(*)
```

```
SELECT SYSDATE - TO_DATE('25-JUN-02') + hire_date  
FROM employees;
```

```
SELECT (hire_date - SYSDATE) + TO_DATE('25-JUN-02')  
FROM employees;
```

Correct

12. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Correct

13. You need to display the number of months between today's date and each employee's hiredate.
Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

Correct

14. You need to display the current year as a character value (for example: Two Thousand and One). Which element would you use? Mark for Review

(1) Points

RR

YY

YYYY

YEAR (*)

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

17. Which best describes the TO_CHAR function? Mark for Review

(1) Points

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

Correct

18. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

(*)

Incorrect. Refer to Section 2

19. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

`SELECT TO_CHAR(price, '$99,900.99') FROM product; (*)`

`SELECT TO_CHAR(price, "$99,900.99") FROM product;`

`SELECT TO_CHAR(price, '$99,990.99') FROM product;`

`SELECT TO_NUMBER(price, '$99,900.99') FROM product;`

Correct

20. Which statement concerning single row functions is true? Mark for Review

(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')
```

```
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees;  
(*)
```

Correct

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

23. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

Evaluate this SELECT statement:

```
SELECT style_id, style_name, category, cost
FROM styles
WHERE style_name LIKE 'SANDAL' AND NVL(cost, 0) < 15.00
ORDER BY category, cost;
```

Which result will the query provide?

Mark for Review

(1) Points

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	
869506	SANDAL	89690	15.00

STYLE_ID	STYLE_NAME	CATEGORY	COST
968950	SANDAL	85909	10.00
895840	SANDAL	85940	12.00
758960	SANDAL	86979	

(*)

Correct

24. You need to replace null values in the DEPT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

TO_NUMBER and NULLIF

Correct

Section 3 Lesson 2

(Answer all questions in this section)

25. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;  
(*)
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
Q FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

26. What is produced when a join condition is not specified in a multiple-table query? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Correct

27. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

28. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Correct

29. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
(*)
```

```
SELECT cust_id, company, total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

Correct

30. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
(*)
```

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Which two operators can be used in an outer join condition using the outer join operator (+)?

Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

32. Which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

33. Which of the following best describes the function of an outer join? Mark for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Correct

35. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Correct

36. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

full outer join

Incorrect. Refer to Section 4

Section 4 Lesson 3

(Answer all questions in this section)

37. Evaluate this SELECT statement:

```
SELECT a.lname || ', ' || a.fname as "Patient", b.lname || ', ' || b.fname as "Physician", c.admission  
FROM patient a  
JOIN physician b  
ON (b.physician_id = c.physician_id);  
JOIN admission c  
ON (a.patient_id = c.patient_id);
```

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id); (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Correct

39. Which SELECT clause creates an equijoin by specifying a column name common to both tables?
Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

40. For which condition would you use an equijoin query with the USING keyword? Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Correct

43. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)
```

```
FROM employees
```

```
GROUP BY job_id;
```

Mark for Review

(1) Points

Displays all the employees and groups them by job.

Displays each job id and the number of people assigned to that job id. (*)

Displays only the number of job_ids.

Displays all the jobs with as many people as there are jobs.

Correct

45. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Correct

46. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

The first column listed in the GROUP BY clause is the most major grouping. (*)

The last column listed in the GROUP BY clause is the most major grouping.

The GROUP BY clause can contain an aggregate function.

A GROUP BY clause cannot be used without an ORDER BY clause.

Correct

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Correct

Section 5 Lesson 2

(Answer all questions in this section)

48. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

49. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Correct

50. The CUSTOMER table contains these columns:

CUSTOMER_ID NUMBER(9)

FNAME VARCHAR2(25)

LNAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Which group function would you use to display the average price of all products in the PRODUCTS table? Mark for Review

(1) Points

SUM

AVG (*)

COUNT

MAX

Correct

52. Which group function would you use to display the highest salary value in the EMPLOYEE table? Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
(*)
```

```
SELECT AVG(payment_amount)
FROM payment;
```

```
SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
FROM payment
WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);
```

Correct

54. The EMPLOYEES table contains these columns:

```
EMPLOYEE_ID NUMBER(9)
LAST_NAME VARCHAR2(20)
FIRST_NAME VARCHAR2(20)
SALARY NUMBER(9,2)
HIRE_DATE DATE
BONUS NUMBER(7,2)
COMM_PCT NUMBER(4,2)
```


Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

Correct

55. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. Which statement about the COUNT function is true? Mark for Review

(1) Points

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

Incorrect. Refer to Section 5

57. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

```
SELECT * FROM employees  
WHERE salary > 50000;
```

```
SELECT * FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000;
```

(*)

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

Correct

58. Group functions can avoid computations involving duplicate values by including which keyword?
Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Correct

59. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

```
SELECT SUM(discount) FROM line_item;
```

```
SELECT AVG(discount) FROM line_item;
```

Correct

Section 6 Lesson 1

(Answer all questions in this section)

60. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER(9) PK

CATEGORY_ID VARCHAR2(10)

LOCATION_ID NUMBER(9)

DESCRIPTION VARCHAR2(30)

COST NUMBER(7,2)

PRICE NUMBER(7,2)

QUANTITY NUMBER

You display the total of the extended costs for each product category by location. You need to include only the products that have a price less than \$25.00. The extended cost of each item equals the quantity value multiplied by the cost value.

Which SQL statement will display the desired result?

Mark for Review

(1) Points

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price > 25.00
GROUP BY category_id, location_id;
```

```
SELECT SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY location_id;
```

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY category_id, location_id;
(*)
```

```
SELECT SUM(cost * quantity) TOTAL
FROM products
WHERE price < 25.00;
```

Incorrect. Refer to Section 6

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id
```


FROM employee

GROUP BY dept_id;

How are the results of this statement sorted?

Mark for Review

(1) Points

Ascending order by dept_id (*)

Descending order by dept_id

Ascending order by cumulative salary

Descending order by cumulative salary

Correct

62. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Correct

63. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, mgr_id
```

```
FROM employee
```

```
GROUP BY dept_id, mgr_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

64. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY location_id;
(*)
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Incorrect. Refer to Section 6

65. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name  
FROM employee  
WHERE dept_id = 1  
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section 6

66. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

67. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

```
SELECT customer_id, COUNT(payment_id)
FROM payment
```

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

(*)

SELECT COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';

SELECT customer_id, COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';

SELECT COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

Incorrect. Refer to Section 6

Section 6 Lesson 2

(Answer all questions in this section)

68. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Correct

69. Which operator can be used with subqueries that return only one row? Mark for Review

(1) Points

LIKE (*)

ANY

ALL

IN

Correct

70. If you use the equality operator (=) with a subquery, how many values can the subquery return?
Mark for Review

(1) Points

only 1 (*)

up to 2

up to 5

unlimited

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. You need to display all the players whose salaries are greater than or equal to John Brown's salary. Which comparison operator should you use? Mark for Review

(1) Points

=

>

<=

>= (*)

Correct

72. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT supervisor_id
```

```
FROM employees  
WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT supervisor_id  
     FROM employees  
     WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT employee_id  
     FROM supervisors  
     WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT employee_id  
     FROM employees
```

```
WHERE last_name = 'Carter');
```

```
(*)
```

Correct

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Correct

Section 6 Lesson 4

(Answer all questions in this section)

76. Evaluate this SELECT statement:

```
SELECT customer_id, name
FROM customer
WHERE customer_id IN
  (SELECT customer_id
   FROM customer
   WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Correct

77. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

78. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description
FROM d_types
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Correct

79. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
FROM payment
WHERE payment_id =
    (SELECT payment_id
     FROM payment
     WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Correct

80. What is wrong with the following query?

```
SELECT employee_id, last_name
```

```
FROM employees
```

```
WHERE salary =
```

```
(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Evaluate this SELECT statement:

```
SELECT player_id, name
```

```
FROM players
```

```
WHERE team_id IN
```

```
(SELECT team_id
```

FROM teams

WHERE team_id > 300 AND salary_cap > 400000);

What would happen if the inner query returned a NULL value?

Mark for Review

(1) Points

No rows would be returned by the outer query. (*)

A syntax error in the outer query would be returned.

A syntax error in the inner query would be returned.

All the rows in the PLAYER table would be returned by the outer query.

Correct

82. Evaluate this SELECT statement that includes a subquery:

SELECT last_name, first_name

FROM customer

WHERE area_code IN

(SELECT area_code FROM sales WHERE salesperson_id = 20);

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Correct

83. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

84. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

85. Which statement about the ANY operator when used with a multiple-row subquery is true? Mark for Review

(1) Points

The ANY operator compares every value returned by the subquery. (*)

The ANY operator can be used with the DISTINCT keyword.

The ANY operator is a synonym for the ALL operator.

The ANY operator can be used with the LIKE and IN operators.

Correct

86. What would happen if you attempted to use a single-row operator with a multiple-row subquery?
Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

88. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);

Correct

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers  
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Correct

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)  
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

92. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Correct

93. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You need to increase the salary for all employees in department 10 by 10 percent. You also need to increase the bonus for all employees in department 10 by 15 percent. Which statement should you use?

Mark for Review

(1) Points

UPDATE employees

SET salary = salary * 1.10, bonus = bonus * 1.15

WHERE dept = 10;

(*)

UPDATE employees

SET salary = salary * 1.10 AND bonus = bonus * 1.15

WHERE dept = 10;

UPDATE employees

SET (salary = salary * 1.10) SET (bonus = bonus * 1.15)

WHERE dept = 10;

UPDATE employees

SET salary = salary * .10, bonus = bonus * .15

WHERE dept = 10;

Incorrect. Refer to Section 7

95. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

```
UPDATE employees  
SET lname = 'roper'  
WHERE lname = 'cooper';
```

```
UPDATE employees  
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Correct

96. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review
(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

97. Which of the following represents the correct syntax for an INSERT statement? Mark for Review
(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES ('3178', 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777'); (*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Correct

98. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

```
DELETE * FROM employees WHERE id_num = 348;
```

```
DELETE 'jones' FROM employees;
```

Correct

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1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

You query the database with this SQL statement:


```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)), 1, 5) "ID"
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00

869506 SANDAL 89690 15.00

809090 LOAFER 89098 10.00

890890 LOAFER 89789 14.00

857689 HEEL 85940 11.00

758960 SANDAL 86979 11.00

You query the database and return the value 40. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2, 2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2, 2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2, 2)
FROM styles
WHERE style_id = 895840;
```

(*)

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

Correct

You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

7. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

Mark for Review

(1) Points

1200

1282

1282.25

1300 (*)

Correct

9. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

10. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

11. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

Correct

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Incorrect. Refer to Section 1

16. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

```
SELECT TO_CHAR(price, '$99,900.99') FROM product; (*)
```

`SELECT TO_CHAR(price, '$99,900.99') FROM product;`

`SELECT TO_CHAR(price, '$99,990.99') FROM product;`

`SELECT TO_NUMBER(price, '$99,900.99') FROM product;`

Correct

17. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

18. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

(*)

```
SELECT hire_date(TO_CHAR 'Month DD', 'YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')  
FROM employees;
```

Incorrect. Refer to Section 2

19. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

20. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')  
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees;
```

(*)

Incorrect. Refer to Section 2

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

22. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

23. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
```

```
FROM student_accounts;
```

(*)

```
SELECT NVL(tuition_balance, 0), NVL (housing_balance), tuition_balance + housing_balance "Balance Due"
```



```
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance  
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER(housing_balance, 0), tuition_balance +  
housing_balance "Balance Due"  
FROM student_accounts;
```

Incorrect. Refer to Section 2

24. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Correct

26. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
(*)
```

Correct

27. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

(*)

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

Correct

28. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

(*)

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
Q FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

29. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect. Refer to Section

30. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

31. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Correct

32. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name  
FROM player p  
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)  
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Correct

33. Which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Incorrect. Refer to Section 3

34. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Incorrect. Refer to Section 4

35. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

36. Which of the following best describes a natural join? Mark for Review

(1) Points

A join between two tables that includes columns that share the same name, datatypes and lengths (*)

A join that produces a Cartesian product

A join between tables where matching fields do not exist

A join that uses only one table

Correct

37. Which SELECT clause creates an equijoin by specifying a column name common to both tables?

Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Incorrect. Refer to Section 4

39. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers
```

```
(custid varchar2(5),
```

```
companyname varchar2(30),
```

```
contactname varchar2(30),
```

```
address varchar2(30),
```

```
city varchar2(20),
```

```
state varchar2(30),
```

```
phone varchar2(20),
```

```
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders
```

```
(orderid varchar2(5) constraint pk_orders_01 primary key,
```

```
orderdate date,  
total number(15),  
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname  
FROM customers  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
NATURAL JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

(*)

```
SELECT orderid, orderdate, total  
FROM orders  
WHERE city = 'Nashville';
```

Correct

40. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
```

```
FROM customers c, sales_order s  
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name  
FROM customers c  
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name  
FROM employees e  
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name  
FROM employees e  
NATURAL JOIN departments d;
```



```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

44. If a select list contains both a column as well as a group function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

45. Evaluate this SELECT statement:

```
SELECT MAX(salary), dept_id
```

```
FROM employee
```

```
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Incorrect. Refer to Section 5

46. Which statement about group functions is true? Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

Incorrect. Refer to Section 5

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Incorrect. Refer to Section 5

48. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

49. Examine the data in the PAYMENT table:

PAYMENT_ID CUSTOMER_ID PAYMENT_DATE PAYMENT_TYPE PAYMENT_AMOUNT

86590586 8908090 10-JUN-03 BASIC 859.00

89453485 8549038 15-FEB-03 INTEREST 596.00

85490345 5489304 20-MAR-03 BASIC 568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
```

```
FROM payment
```

```
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
```

(*)

```
SELECT AVG(payment_amount)
```

```
FROM payment;
```

```
SELECT SUM(payment_amount)
```

```
FROM payment
```

```
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
```

FROM payment

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

Correct

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

51. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount) (*)

WHERE MAX(order_dt) = order_dt

SELECT location_id, MIN(AVG(order_amount)) (*)

Incorrect. Refer to Section 5

52. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Incorrect. Refer to Section 5

53. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

Correct

54. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

55. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

56. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00

968950 SANDAL 85909 10.00

869506 SANDAL 89690 15.00

809090 LOAFER 89098 10.00

890890 LOAFER 89789 14.00

857689 HEEL 85940 11.00

758960 SANDAL 86979

You issue this SELECT statement:

```
SELECT COUNT(category)
```

```
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Incorrect. Refer to Section 5

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Incorrect. Refer to Section 5

58. Group functions can avoid computations involving duplicate values by including which keyword?

Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Incorrect. Refer to Section 5

59. Evaluate this SELECT statement:

SELECT COUNT(*)

FROM products;

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

Incorrect. Refer to Section 5

60. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

61. The MANUFACTURER table contains these columns:

MANUFACTURER_IDNUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_IDNUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

SELECT location_id, COUNT(DISTINCT type)

FROM manufacturer

GROUP BY location_id;

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Correct

62. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

```
SELECT
FROM
```

WHERE

ORDER BY

HAVING

SELECT

FROM

HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

Correct

63. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
(*)
```

```
SELECT MIN (prod_price), prod_cat
FROM products
GROUP BY MIN (prod_price), prod_cat;
```

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

Correct

64. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, department_id, SUM(salary)
FROM employees
WHERE salary > 25000
GROUP BY department_id, id_number, name
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Correct

65. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name
FROM employee
WHERE dept_id = 1
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section

66. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'PITCHER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)  
FROM players p JOIN teams t ON (p.team_id = t.team_id)  
WHERE UPPER(p.position) = 'PITCHER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;  
(*)
```

Incorrect. Refer to Section 6

67. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Incorrect. Refer to Section 6

68. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

Incorrect. Refer to Section 6

69. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT *  
  
FROM class_assignments  
  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);  
  
(*)
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);  
  
(*)
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
  
FROM class_assignments  
  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

71. The EMPLOYEES and ORDERS tables contain these columns:

EMPLOYEES

EMP_ID NUMBER(10) NOT NULL PRIMARY KEY

FNAME VARCHAR2(30)

LNAME VARCHAR2(30)

ADDRESS VARCHAR2(25)

CITY VARCHAR2(20)

STATE VARCHAR2(2)

ZIP NUMBER(9)

TELEPHONE NUMBER(10)

ORDERS

ORDER_ID NUMBER(10) NOT NULL PRIMARY KEY

EMP_ID NUMBER(10) NOT NULL FOREIGN KEY

ORDER_DATE DATE

TOTAL NUMBER(10)

Which SELECT statement will return all orders generated by a sales representative named Franklin during the year 2001?

Mark for Review

(1) Points

```
SELECT order_id, total  
FROM ORDERS (SELECT emp_id FROM employees WHERE lname = 'Franklin')  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT (SELECT emp_id FROM employees WHERE lname = 'Franklin') AND order_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT order_id, emp_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01' AND emp_id = 'Franklin';
```

```
SELECT order_id, total  
FROM ORDERS  
WHERE emp_id = (SELECT emp_id FROM employees WHERE lname = 'Franklin')  
AND order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

(*)

Correct

72. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect. Refer to Section 6

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT employee_id  
    FROM supervisors  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT employee_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

(*)

Incorrect. Refer to Section 6

74. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

76. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

77. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

SELECT description

FROM d_types

WHERE code IN (SELECT type_code FROM d_songs);

SELECT description

FROM d_types

WHERE code = ANY (SELECT type_code FROM d_songs);

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Incorrect. Refer to Section 6

78. Evaluate this SELECT statement:

```
SELECT customer_id, name
FROM customer
WHERE customer_id IN
  (SELECT customer_id
   FROM customer
   WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

79. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Incorrect. Refer to Section 6

80. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

81. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Incorrect. Refer

82. What would happen if you attempted to use a single-row operator with a multiple-row subquery?

Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect. Refer to Section 6

83. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
```

```
FROM employees
```

```
WHERE department_id IN
```

```
(SELECT department_id
```

```
FROM employees
```

```
WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

84. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485	8549038	15-FEB-03	INTEREST	596.00
----------	---------	-----------	----------	--------

85490345	5489304	20-MAR-03	BASIC	568.00
----------	---------	-----------	-------	--------

This statement fails when executed:

```
SELECT customer_id, payment_type
```

```
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name
FROM employees
WHERE salary =
```


(SELECT MIN(salary) FROM employees GROUP BY department_id);

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485	8549038	15-FEB-03	INTEREST	596.00
----------	---------	-----------	----------	--------

85490345	5489304	20-MAR-03	BASIC	568.00
----------	---------	-----------	-------	--------

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
    (SELECT payment_id
     FROM payment
     WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Incorrect. Refer to Section 6

87. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
```

VALUES (70, 'Public Relations', 100, 1700);

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Incorrect. Refer

89. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

```
INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);
```

Incorrect. Refer to Section 7

90. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

UPDATE employees

```
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Incorrect. Refer to Section 7

92. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

93. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

UPDATE employee

SET salary = SELECT salary

FROM employee

WHERE emp_id = 89898;

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)

WHERE dept = 10;

(*)

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Correct

97. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

98. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Correct

1. Once you have learned how to write programs and build systems, you no longer need any input or involvement from any users, as you are perfectly capable of delivering the systems the business needs and wants.
 - True. All that perfect systems need are correct programs.
 - **False. Business requirements can and will change. For instance new legal requirements may arise. (*)**
 - True. All users do is delay systems delivery with their forever changing minds and new requirements.
 - True. Users never know what they want anyway, so building systems are best left to the professionals.
2. Information which was gained from data is the same as: (Choose Two)
 - **Knowledge (*)**
 - Raw Materials
 - **Intelligence (*)**
 - There is no difference between data and information
3. Consider your school library. It will have a database with transaction details of which student borrows which books. Is details of the total number of books out on loan in one given month Data or Information?
 - Data
 - **Information (*)**
 - Both
 - Neither
4. The first step in system development is to document the requirements. Why?
 - Wrong. A blueprint for the database design is not needed. We can just start coding straight away
 - **It clarifies what a business wants to accomplish, and provides measures for deciding if the system delivers all that is required. (*)**
 - It allows application development to be conducted without having to consider database design.
 - It keeps businesses honest
5. Databases were invented in 1989. True or False?
 - True
 - **False (*)**
6. Oracle Database Software do not provide or does not comprise of which functionality?
 - Graphical User Interface
 - Internet Browser
 - Server
 - **Operating System (*)**
7. An entity is instantiated as a ?
 - experience
 - instance
 - **table (*)**
 - none of the above

8. Relationship names are usually verbs. True or False?
- **True (*)**
 - False
9. The entity/relationship model is created before the physical database design model. True or False?
- **True (*)**
 - False
10. All of the following could be attributes of an ENTITY called PERSON except one. Select the incorrect one:
- Haircolor
 - Weight
 - Gender
 - **Natacha Hansen (*)**
11. An entity can have many Unique Identifiers. True or False?
- **True (*)**
 - False
12. Volatile entities have special requirements and need special attention when you are doing data modelling. True or False?
- **True (*)**
 - False
13. Which of the following entities most likely contains valid attributes?
- **Entity: Home. Attributes: Number of Bedrooms, Owner, Address, Date Built (*)**
 - **Entity: Pet. Attributes: Name, Birthdate, Owner (*)**
 - Entity: Car. Attributes: Owner Occupation, Owner Salary, Speed
 - Entity: Mother. Attributes: Name, Birthdate, Occupation, Salary
14. Relationship Names are optional. True or False?
- True
 - **False (*)**
15. Which of the following are valid relationship degrees
- **1:1 (*)**
 - **1:M (*)**
 - 1:O
 - O:O
16. Which symbol is used to show that a particular attribute is mandatory?
- *** (*)**
 - O
 - #
 - &
17. The many end of a Relationship is called:
- Gulls Foot
 - Pigs Ear
 - Crows Ear
 - **Crows Foot (*)**
18. When reading a relationship between 2 entities, the relationship is read both from left to right and right to left. True or False?
- **True (*)**
 - False
19. All ER diagrams must have one of each of the following:
- **One or more Entities (*)**
 - **Relationships between entities (*)**
 - Arcs
 - At least one supertype and subtype
20. Which of the following are suitable Entity names? (Choose Two)
- DOGS

- **ANIMAL (*)**
 - ANIMALS
 - **DOG (*)**
21. Which of the following is true about subtypes?
- One instance may belong to two subtypes of the same supertype.
 - **Subtypes must be mutually exclusive. (*)**
 - Subtypes must not be mutually exclusive.
 - Subtype entities may not have relationships to the other subtype entities, only the supertype itself.
22. All instances of the supertype must be an instance of one of the subtypes. True or False?
- **True (*)**
 - False
23. All instances of the subtypes can be an instance of the supertype but do not have to. True or False?
- True
 - **False (*)**
24. How would you model a business rule that states that girls and boys may not attend classes together?
- Use a supertype
 - **Use two subtypes with relationships from class to student gender (*)**
 - Make the attribute Gender mandatory
 - You cannot model this. You need to document it.
25. Can all constraints be modeled on an ER diagram?
- No, in which case you should let the database administrator handle them
 - No, but you just explain them to the users so they can enforce them
 - Yes, all constraints must be modeled and shown on the ER diagram
 - **No, so you should list them on a separate document to be handled programmatically (*)**
26. Business rules are not important to data modelers. True or False?
- True
 - **False (*)**
27. Why is it important to identify and document structural rules?
- **Ensures we know what data to store and how that data interrelate. (*)**
 - Ensures nothing. There is no benefits to be gained from documenting your Structural Business Rules. We need to concentrate on the Procedural Business Rules only.
 - Ensures we know what Information to store and how that Information interrelate.
 - All of the Above.
28. A non-transferable relationship means the detail cannot be changed to point to a new master. True or False?
- **True (*)**
 - False
29. If two entities have two relationships between them, these relationships can be either _____ or _____ ? (Choose Two)
- **Redundant or Required (In which case they would depict different relationships) (*)**
 - Replicated or Required (In which case they would depict different relationships)
 - Resourced and Really Good
 - Redundant and Replicated
30. What uncommon relationship is described by the statements: "Each DNA SAMPLE may be taken from one and only one PERSON and each PERSON may provide one and only one DNA SAMPLE"
- One to Many Optional
 - One to Many Mandatory
 - **One to One Optional (*)**
 - Many to Many Mandatory
31. How do you include a relationship as part of the UID for an entity?
- **By barring the relationship in question (*)**

- By reporting it in an external document
 - By including the UID from the parent entity as an attribute in the entity
 - You cannot model that.
32. Many to many relationships must be left in the Model. It is important to have them documented as M-M. True or False?
- True
 - **False (*)**
33. The first UID for an entity is called the Primary UID, the second is called Secondary UID and so on.
- **Yes, this is the way UID's are named. (*)**
 - No, it is not possible to have more than one UID for an Entity.
 - Yes, but then it stops. No entities can have more than two UID's.
 - No, each Entity can only have one UID, the secondary one.
34. When data is stored in one place in a database, the database conforms to the rules of
- Normality
 - Reduction
 - **Normalization (*)**
 - Multiplication
35. When is an entity in 2nd Normal Form?
- **When all non-UID attributes are dependent upon the entire UID. (*)**
 - When no attributes are mutually independent and fully independent on the primary key.
 - When no attributes are mutually independent and all are fully dependent on the primary key.
 - None of the Above.
36. No parts of a UID are mandatory. True or False?
- True
 - **False (*)**
37. Which of the following is NOT a relationship type?
- **Some to None (*)**
 - One to One
 - One to Many
 - Many to Many
38. All relationships participating in an arc must be mandatory. True or False?
- True
 - **False (*)**
39. Which of the following would best be represented by an arc?
- STUDENT (Female, Bob)
 - **DELIVERY ADDRESS (Home, Office) (*)**
 - PARENT (Girl, Bob)
 - STUDENT (Grade A student, Average Student)
40. Arcs are Mandatory in Data modelling. All ERD's must have at least one Arc. True or False?
- True
 - **False (*)**
41. Which of the following would be good as a Unique Identifier for its Entity?
- **Personal Identification number for Person (*)**
 - **Vehicle Registration Number for Car (*)**
 - **ISBN Number for Book (*)**
 - Date of birth for Baby
42. Modeling historical data can produce a unique identifier that always excludes dates. True or False?
- True
 - **False (*)**

43. Consultants often use their experience in ensuring projects stay on track and delivers within the timescales set out for the project. True or False?
- **True (*)**
 - False
44. Your apperance at a presentation is important. You need to look smart and presentable. True or False?
- **True (*)**
 - False
45. Which of the following would be a logical constraint when modeling time for a City entity?
- People are born in the city and people die in the city.
 - **Cites may change their name and/or which country they are placed in, if the borders of a country change. (*)**
 - If you are doing a system for any French City, you would need security clearance
 - You need a constant record of cities because they are still cities, even if leadership changes over time, e.g. they get a new Mayor
46. If a system includes the concept of time, and it stores Start Dates, then End Dates becomes Mandatory. For each Start Date attribute you create, you MUST create an End Date attribute and it must be mandatory. True or False?
- True
 - **False (*)**
47. Modeling historical data is Optional. True or False?
- **True (*)**
 - False
48. What do users of a system without the concept of time loose?
- Journalling becomes much easier.
 - Journalling becomes slightly harder.
 - **The ability to track data over time. (*)**
 - Nothing is lost if a system does not track time.
49. Why would you want to model a time component when designing a system that lets people buy shares via the Internet?
- This would only be required in the US to allow the New York Stock Exchange to be notified of this information.
 - **To allow the sales people to determine when the shared were bought and therefore at what price. (*)**
 - You would not want to model this, it is not important.
 - **The price of shares fluctuates and for determining price, you need to know the time of purchase (*)**
50. You are doing a data model for a computer sales company, where the price of postage is ependant on what day of the week goods are shipped. So shipping is more expensive if the customer wants a delivery to take place on a Saturday or Sunday. What would be the best way to model this?
- **Use a Delivery Day entity, which holds prices against week days, and ensure the we also have an attribute for the Requested Delivery Day in the Order Entity. (*)**
 - Email current price to all employees whenever the prices change.
 - Update the prices in the system, print out the current prices when they change and pin them on the company noticeboard
 - Allow them to enter whatever ever delivery charge they want.

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. You query the database with this SQL statement:

```
SELECT CONCAT(last_name,(SUBSTR(LOWER(first_name),4))) "Default Password"  
FROM employees;
```

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

2. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

3. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

4. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY
```

```
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Incorrect. Refer to Section 1

5. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name, first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

6. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	12.00
--------	--------	-------	-------

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

(*)

Correct

7. You need to display each employee's name in all uppercase letters. Which function should you use?
Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

9. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
```

```
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

10. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

12. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

SELECT hire_date + eval_months

FROM employees;

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Incorrect. Refer to Section 1

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

```
SELECT orderid, total  
FROM orders  
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )  
ORDER BY total;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

(*)

```
SELECT orderid, total
```



```
FROM orders

WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'

ORDER BY total DESC;
```

Incorrect. Refer to Section 1

15. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS

FROM employees

WHERE department_id = 90;

(*)
```

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS

FROM employees

WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS

FROM employees
```

```
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

Incorrect. Refer to Section 1

Section 2 Lesson 1

(Answer all questions in this section)

16. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

17. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

18. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

19. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)

NEXT_DAY(hire_date) + 5

SYSDATE - 6

`SYSDATE + 30 / 24`

Incorrect. Refer to Section 2

20. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;  
(*)
```

Incorrect. Refer to Section 2

Page 2 of 10

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. Which three statements concerning explicit data type conversions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

Incorrect. Refer to Section 2

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Incorrect. Refer to Section 2

23. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

Mark for Review

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

Correct

24. You need to replace null values in the DEPARTMENT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

TO_NUMBER and NULLIF

Incorrect. Refer to Section 2

Section 3 Lesson 2

(Answer all questions in this section)

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect. Refer to Section 3

26. You need to provide a list of the first and last names of all employees who work in the Sales department who earned a bonus and had sales over \$50,000. The company president would like the sales listed starting with the highest amount first. The EMPLOYEES table and the SALES_DEPT table contain the following columns:

EMPLOYEES

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(8,2)

SALES_DEPT

SALES_ID NUMBER(10) PRIMARY KEY

SALES NUMBER(20)

QUOTA NUMBER(20)

MANAGER NUMBER(10)

BONUS NUMBER(10)

EMPLOYEE_ID NUMBER(10) FOREIGN KEY

Which SELECT statement will accomplish this task?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
FROM employees e, sales_dept s
ORDER BY sales DESC
```

WHERE e.employee_id = s.employee_id AND sales > 50000 AND s.bonus IS NOT NULL;

SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
ORDER BY sales DESC
FROM employees e, sales_dept s
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000;

SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
WHERE e.employee_id = s.employee_id
FROM employees e, sales_dept s AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;

SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
FROM employees e, sales_dept s
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;

(*)

Incorrect. Refer to Section 3

27. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
FROM employees e, departments d
WHERE e.department_id = d.department_id AND employees.department_id > 5000
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

```
FROM employees e, departments d
```

```
WHERE e.department_id = d.department_id
```

```
AND employees.department_id > 5000 (*)
```

```
ORDER BY 4;
```

Incorrect. Refer to Section 3

28. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

Incorrect. Refer to Section 3

29. What is produced when a join condition is not specified in a multiple-table query using Oracle proprietary Join syntax? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Incorrect. Refer to Section 3

30. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Using Oracle Proprietary join syntax, which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Incorrect. Refer to Section 3

33. Using Oracle Proprietary join syntax, which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join two tables that have two columns with the same name, datatype and precision. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

Correct

35. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

Full outer join

Incorrect. Refer to Section 4

36. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

Correct

Section 4 Lesson 3

(Answer all questions in this section)

37. Which keyword in a SELECT statement creates an equijoin by specifying a column name common to both tables? Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Incorrect. Refer to Section 4

38. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name
FROM customers c
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Incorrect. Refer to Section 4

40. Evaluate this SELECT statement:

```
SELECT a.last_name || ', ' || a.first_name as "Patient", b.last_name || ', ' || b.first_name as "Physician",  
c.admission
```

```
FROM patient a
```

```
JOIN physician b
```

```
ON (b.physician_id = c.physician_id)
```

```
JOIN admission c
```


ON (a.patient_id = c.patient_id);

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id) (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Incorrect. Refer to Section 4

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. Which query represents the correct syntax for a left outer join? Mark for Review

(1) Points

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT JOIN orders o  
ON c.cust_id = o.cust_id;
```

```
SELECT companyname, orderdate, total  
FROM customers c  
OUTER JOIN orders o  
ON c.cust_id = o.cust_id;
```

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT OUTER JOIN orders o  
ON c.cust_id = o.cust_id;  
(*)
```

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT OUTER orders o  
ON c.cust_id = o.cust_id;
```

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Incorrect. Refer to Section 4

(Answer all questions in this section)

44. Evaluate this SELECT statement:

```
SELECT MAX(salary), department_id
```

```
FROM employees
```

```
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Correct

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Incorrect. Refer to Section 5

46. If a select list contains both columns as well as groups function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Incorrect. Refer to Section 5

Section 5 Lesson 2

(Answer all questions in this section)

48. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

49. The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

Mark for Review

(1) Points

SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)

SELECT AVG (price) FROM trucks WHERE model IS '4x4';

SELECT AVG(price) FROM trucks WHERE model IS 4x4;

SELECT AVG(price), model FROM trucks WHERE model = '4x4';

Correct

50. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Which aggregate function can be used on a column of the DATE data type? Mark for Review

(1) Points

AVG

MAX (*)

STDDEV

SUM

Incorrect. Refer to Section 5

52. Which group function would you use to display the highest salary value in the EMPLOYEE table?
Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

54. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

55. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER (7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Incorrect. Refer to Section 5

(Answer all questions in this section)

56. Evaluate this SELECT statement:

```
SELECT COUNT(*)  
FROM employees  
WHERE salary > 30000;
```

Which results will the query display?

Mark for Review

(1) Points

The number of employees that have a salary less than 30000.

The total of the SALARY column for all employees that have a salary greater than 30000.

The number of rows in the EMPLOYEES table that have a salary greater than 30000. (*)

The query generates an error and returns no results.

Correct

57. The EMPLOYEES table contains these columns:

```
EMPLOYEE_IDNUMBER(9)
```

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

SELECT * FROM employees
WHERE salary > 50000;

SELECT * FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary > 50000;

(*)


```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

Incorrect. Refer to Section 5

58. Evaluate this SQL statement:

```
SELECT COUNT (amount)  
FROM inventory;
```

What will occur when the statement is issued?

Mark for Review

(1) Points

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

Incorrect. Refer to Section 5

59. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Incorrect. Refer to Section 5

Section 6 Lesson 1

(Answer all questions in this section)

60. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id  
FROM employees  
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you should use a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

62. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
(*)
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT customer_id, COUNT(payment_id)
```

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';

SELECT COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

Incorrect. Refer to Section 6

63. Evaluate this SELECT statement:

SELECT COUNT(emp_id), mgr_id, dept_id

FROM employee

WHERE status = 'I'

GROUP BY dept_id

HAVING salary > 30000

ORDER BY 2;

Why does this statement return a syntax error?

Mark for Review

(1) Points

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

Incorrect. Refer to Section 6

64. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id  
FROM employees  
GROUP BY department_id;
```

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Incorrect. Refer to Section 6

65. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary) (*)

GROUP BY MAX(salary)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

66. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

SELECT id_number, name, hire_date, department_id, SUM(salary)

FROM employees

WHERE salary > 25000

GROUP BY department_id, id_number, name

ORDER BY hire_date;

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect. Refer to Section 6

67. Evaluate this statement:

SELECT department_id, AVG(salary)

FROM employees

WHERE job_id <> 69879

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000

ORDER BY department_id;

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

SELECT department_id, AVG(salary)

WHERE job_id <> 69879 (*)

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000 (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Incorrect. Refer to Section 6

69. Which operator can be used with a multiple-row subquery? Mark for Review

(1) Points

IN (*)

<>

=

LIKE

Incorrect. Refer to Section 6

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

```
WHERE max_capacity=(SELECT AVG(max_capacity) FROM class_assignments);
```

```
(*)
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);
```

```
(*)
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *
```

```
FROM class_assignments
```

```
WHERE max_capacity=(SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. Using a subquery in which of the following clauses will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

You can use subqueries in all of the above clauses. (*)

Correct

72. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points

```
SELECT product_name  
FROM products  
WHERE cost > (SELECT AVG(cost) FROM product);  
(*)
```

```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```



```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```

Incorrect. Refer to Section 6

Section 6 Lesson 3

(Answer all questions in this section)

73. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

75. Which statement about the <> operator is true? Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

Incorrect. Refer to Section 6

Section 6 Lesson 4

(Answer all questions in this section)

76. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
  (SELECT department_id
   FROM employees
   WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

77. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

MANAGER_ID NUMBER(9)

SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)

OLD_DEPT_IDNUMBER(9)

NEW_DEPT_IDNUMBER(9)

CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
      (SELECT employee_id, new_dept_id
       FROM depart_hist
       WHERE old_dept_id = 15) AND new_dept_id = 10;
```

(*)

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id) IN
      (SELECT employee_id
       FROM employee_hist
       WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) =
(SELECT employee_id, new_dept_id
FROM depart_hist
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
(SELECT employee_id, dept_id
FROM employee
WHERE old_dept_id = 15);
```

Incorrect. Refer to Section 6

78. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description
```

```
FROM d_types  
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Incorrect. Refer to Section 6

79. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
(SELECT customer_id
```


FROM customer

WHERE state_id = 'GA' AND credit_limit > 500.00);

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

80. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Correct

82. Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name
```

```
FROM student
```

```
WHERE major_id NOT IN
```

```
(SELECT major_id
```

```
FROM majors
```

```
WHERE department_head_id = 30 AND title = 'ADJUNCT');
```

What would happen if the inner query returned a NULL value row?

Mark for Review

(1) Points

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Correct

83. Which of the following is a valid reason why the query below will not execute successfully?

```
SELECT employee_id, last_name, salary
```

```
FROM employees
```

```
WHERE department_id =
```

```
(SELECT department_id FROM employees WHERE last_name like '%u%')
```

Mark for Review

(1) Points

First subquery not enclosed in parenthesis

Single rather than multiple value operator used. (*)

Second subquery found on the right instead of the left side of the operator.

The greater than operator is not valid.

Incorrect. Refer to Section 6

84. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name
```

```
FROM customer
```

```
WHERE area_code IN
```

```
(SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name
```

```
FROM employees
```

```
WHERE salary =
```

```
(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM departments
     WHERE department_name = 'Executive');
```

Mark for Review

(1) Points

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
(SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
FROM students  
  
WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Correct

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers  
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers  
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Incorrect. Refer to Section 7

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)  
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

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Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET last_name = 'cooper'

WHERE last_name = 'roper';

(*)

UPDATE employees last_name = 'cooper'

WHERE last_name = 'roper';

UPDATE employees

SET last_name = 'roper'

WHERE last_name = 'cooper';

UPDATE employees

SET cooper = 'last_name'

WHERE last_name = 'roper';

Correct

92. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Incorrect. Refer to Section 7

93. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Incorrect. Refer to Section 7

94. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

MERGE (*)

SELECT

UPDATE (*)

Incorrect. Refer to Section 7

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

```
DELETE FROM products
WHERE supplier_id IN
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
(*)
```

```
DELETE FROM products
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products
```

```
WHERE supplier_id =  
  
(SELECT supplier_id  
  
FROM suppliers  
  
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products  
  
WHERE supplier_id <  
  
(SELECT supplier_id  
  
FROM suppliers  
  
WHERE UPPER(city) = 'ALANTA');
```

Correct

98. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review
(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Incorrect. Refer to Section 7

99. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

Incorrect. Refer to Section 7

100. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Incorrect. Refer to Section 7

Page 10 of 10

1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

You query the database with this SQL statement:


```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00

869506 SANDAL 89690 15.00

809090 LOAFER 89098 10.00

890890 LOAFER 89789 14.00

857689 HEEL 85940 11.00

758960 SANDAL 86979 11.00

You query the database and return the value 40. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2, 2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2, 2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2, 2)
FROM styles
WHERE style_id = 895840;
```

(*)

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

Correct

You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

7. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

Mark for Review

(1) Points

1200

1282

1282.25

1300 (*)

Correct

9. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

10. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

11. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Correct

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Incorrect. Refer to Section 1

16. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

```
SELECT TO_CHAR(price, '$99,900.99') FROM product; (*)
```

`SELECT TO_CHAR(price, '$99,900.99') FROM product;`

`SELECT TO_CHAR(price, '$99,990.99') FROM product;`

`SELECT TO_NUMBER(price, '$99,900.99') FROM product;`

Correct

17. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

18. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

(*)

```
SELECT hire_date(TO_CHAR 'Month DD', 'YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')  
FROM employees;
```

Incorrect. Refer to Section 2

19. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

20. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')  
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees;
```

(*)

Incorrect. Refer to Section 2

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

22. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

23. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
```

```
FROM student_accounts;
```

(*)

```
SELECT NVL(tuition_balance, 0), NVL(housing_balance), tuition_balance + housing_balance "Balance Due"
```



```
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance  
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER(housing_balance, 0), tuition_balance +  
housing_balance "Balance Due"  
FROM student_accounts;
```

Incorrect. Refer to Section 2

24. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Correct

26. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
(*)
```

Correct

27. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

(*)

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

Correct

28. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

(*)

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
Q FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

29. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect. Refer to Section

30. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

31. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Correct

32. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name  
FROM player p  
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)  
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Correct

33. Which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Incorrect. Refer to Section 3

34. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Incorrect. Refer to Section 4

35. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

36. Which of the following best describes a natural join? Mark for Review

(1) Points

A join between two tables that includes columns that share the same name, datatypes and lengths (*)

A join that produces a Cartesian product

A join between tables where matching fields do not exist

A join that uses only one table

Correct

37. Which SELECT clause creates an equijoin by specifying a column name common to both tables?

Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Incorrect. Refer to Section 4

39. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers
```

```
(custid varchar2(5),
```

```
companyname varchar2(30),
```

```
contactname varchar2(30),
```

```
address varchar2(30),
```

```
city varchar2(20),
```

```
state varchar2(30),
```

```
phone varchar2(20),
```

```
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders
```

```
(orderid varchar2(5) constraint pk_orders_01 primary key,
```

```
orderdate date,  
total number(15),  
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname  
FROM customers  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
NATURAL JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

(*)

```
SELECT orderid, orderdate, total  
FROM orders  
WHERE city = 'Nashville';
```

Correct

40. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
```

```
FROM customers c, sales_order s  
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name  
FROM customers c  
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name  
FROM employees e  
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name  
FROM employees e  
NATURAL JOIN departments d;
```



```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

44. If a select list contains both a column as well as a group function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

45. Evaluate this SELECT statement:

```
SELECT MAX(salary), dept_id
```

```
FROM employee
```

```
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Incorrect. Refer to Section 5

46. Which statement about group functions is true? Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

Incorrect. Refer to Section 5

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Incorrect. Refer to Section 5

48. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

49. Examine the data in the PAYMENT table:

PAYMENT_ID CUSTOMER_ID PAYMENT_DATE PAYMENT_TYPE PAYMENT_AMOUNT

86590586 8908090 10-JUN-03 BASIC 859.00

89453485 8549038 15-FEB-03 INTEREST 596.00

85490345 5489304 20-MAR-03 BASIC 568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
```

```
FROM payment
```

```
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
```

(*)

```
SELECT AVG(payment_amount)
```

```
FROM payment;
```

```
SELECT SUM(payment_amount)
```

```
FROM payment
```

```
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
```

FROM payment

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

Correct

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

51. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount) (*)

WHERE MAX(order_dt) = order_dt

SELECT location_id, MIN(AVG(order_amount)) (*)

Incorrect. Refer to Section 5

52. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Incorrect. Refer to Section 5

53. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

Correct

54. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

55. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

56. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00

968950 SANDAL 85909 10.00

869506 SANDAL 89690 15.00

809090 LOAFER 89098 10.00

890890 LOAFER 89789 14.00

857689 HEEL 85940 11.00

758960 SANDAL 86979

You issue this SELECT statement:

```
SELECT COUNT(category)
```

```
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Incorrect. Refer to Section 5

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Incorrect. Refer to Section 5

58. Group functions can avoid computations involving duplicate values by including which keyword?

Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Incorrect. Refer to Section 5

59. Evaluate this SELECT statement:

SELECT COUNT(*)

FROM products;

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

Incorrect. Refer to Section 5

60. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

61. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

SELECT location_id, COUNT(DISTINCT type)

FROM manufacturer

GROUP BY location_id;

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Correct

62. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

```
SELECT
FROM
```

WHERE

ORDER BY

HAVING

SELECT

FROM

HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

Correct

63. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
```

```
FROM products
```

```
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
(*)
```

```
SELECT MIN (prod_price), prod_cat
FROM products
GROUP BY MIN (prod_price), prod_cat;
```

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

Correct

64. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, department_id, SUM(salary)
FROM employees
WHERE salary > 25000
GROUP BY department_id, id_number, name
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Correct

65. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name
FROM employee
WHERE dept_id = 1
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section

66. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'PITCHER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)  
FROM players p JOIN teams t ON (p.team_id = t.team_id)  
WHERE UPPER(p.position) = 'PITCHER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;  
(*)
```

Incorrect. Refer to Section 6

67. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Incorrect. Refer to Section 6

68. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

Incorrect. Refer to Section 6

69. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT *  
  
FROM class_assignments  
  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);  
  
(*)
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);  
  
(*)
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
  
FROM teachers  
  
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
  
FROM class_assignments  
  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

71. The EMPLOYEES and ORDERS tables contain these columns:

EMPLOYEES

EMP_ID NUMBER(10) NOT NULL PRIMARY KEY

FNAME VARCHAR2(30)

LNAME VARCHAR2(30)

ADDRESS VARCHAR2(25)

CITY VARCHAR2(20)

STATE VARCHAR2(2)

ZIP NUMBER(9)

TELEPHONE NUMBER(10)

ORDERS

ORDER_ID NUMBER(10) NOT NULL PRIMARY KEY

EMP_ID NUMBER(10) NOT NULL FOREIGN KEY

ORDER_DATE DATE

TOTAL NUMBER(10)

Which SELECT statement will return all orders generated by a sales representative named Franklin during the year 2001?

Mark for Review

(1) Points

```
SELECT order_id, total  
FROM ORDERS (SELECT emp_id FROM employees WHERE lname = 'Franklin')  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT (SELECT emp_id FROM employees WHERE lname = 'Franklin') AND order_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT order_id, emp_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01' AND emp_id = 'Franklin';
```

```
SELECT order_id, total  
FROM ORDERS  
WHERE emp_id = (SELECT emp_id FROM employees WHERE lname = 'Franklin')  
AND order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

(*)

Correct

72. the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect. Refer to Section 6

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT employee_id  
    FROM supervisors  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT employee_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

(*)

Incorrect. Refer to Section 6

74. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

76. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

77. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

SELECT description

FROM d_types

WHERE code IN (SELECT type_code FROM d_songs);

SELECT description

FROM d_types

WHERE code = ANY (SELECT type_code FROM d_songs);

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Incorrect. Refer to Section 6

78. Evaluate this SELECT statement:

```
SELECT customer_id, name
FROM customer
WHERE customer_id IN
  (SELECT customer_id
   FROM customer
   WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

79. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Incorrect. Refer to Section 6

80. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

81. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Incorrect. Refer

82. What would happen if you attempted to use a single-row operator with a multiple-row subquery?

Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect. Refer to Section 6

83. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
```

```
FROM employees
```

```
WHERE department_id IN
```

```
(SELECT department_id
```

```
FROM employees
```

```
WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

84. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485	8549038	15-FEB-03	INTEREST	596.00
----------	---------	-----------	----------	--------

85490345	5489304	20-MAR-03	BASIC	568.00
----------	---------	-----------	-------	--------

This statement fails when executed:

```
SELECT customer_id, payment_type
```

```
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name
FROM employees
WHERE salary =
```


(SELECT MIN(salary) FROM employees GROUP BY department_id);

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485	8549038	15-FEB-03	INTEREST	596.00
----------	---------	-----------	----------	--------

85490345	5489304	20-MAR-03	BASIC	568.00
----------	---------	-----------	-------	--------

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
    (SELECT payment_id
     FROM payment
     WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Incorrect. Refer to Section 6

87. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
```

VALUES (70, 'Public Relations', 100, 1700);

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Incorrect. Refer

89. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

```
INSERT INTO products(product_id,product_name,supplier_id)VALUES (2958,'Cable',8690,SYSDATE);
```

Incorrect. Refer to Section 7

90. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

UPDATE employees

```
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Incorrect. Refer to Section 7

92. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

93. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

UPDATE employee

SET salary = SELECT salary

FROM employee

WHERE emp_id = 89898;

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)

WHERE dept = 10;

(*)

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Correct

97. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

98. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Correct

1. You need to display each employee's name in all uppercase letters. Which function should you use? Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

2. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

3. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employee;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

4. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

5. Which functions can be used to manipulate character, number, and date column values?
Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTH

6. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"
```

```
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

7. Which three statements about functions are true? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

10. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) [Mark for Review](#)

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

11. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30  
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

12. You need to display the current year as a character value (for example: Two Thousand and One). Which element would you use? Mark for Review

(1) Points

RR

YY

YYYY

YEAR (*)

13. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

14. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS  
FROM employees  
WHERE department_id = 90;
```

(*)

```
SELECT last_name, (SYSDATE-hire_date)/7 DISPLAY WEEKS  
FROM employees  
WHERE department_id = 90;
```

```
SELECT last_name, # of WEEKS  
FROM employees  
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

16. Which statement concerning single row functions is true?

Mark for Review

(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

17. Which two statements concerning SQL functions are true? (Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

18. Which three statements concerning explicit data type conversions are true?
(Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

19. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
```

FROM employees;

(*)

```
SELECT hire_date(TO_CHAR 'Month DD', 'YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')  
FROM employees;
```

20. Which arithmetic operation will return a numeric value?

Mark for Review

(1) Points

```
TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)
```

```
NEXT_DAY(hire_date) + 5
```

```
SYSDATE - 6
```

SYSDATE + 30 / 24

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Incorrect

Incorrect. Refer to Section 2

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22. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

Mark for Review

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

24. You need to replace null values in the DEPT_ID column with the text "N/A".
Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

25. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect

Incorrect. Refer to Section 3

26. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

27. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect

Incorrect. Refer to Section 3

28. You need to provide a list of the first and last names of all employees who work in the Sales department who earned a bonus and had sales over \$50,000. The company president would like the sales listed starting with the highest amount first. The EMPLOYEES table and the SALES_DEPT table contain the following columns:

EMPLOYEES

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

SALES_DEPT

SALES_ID NUMBER(10) PRIMARY KEY

SALES NUMBER(20)

QUOTA NUMBER(20)

MGR VARCHAR2(30)

BONUS NUMBER(10)

EMP_ID NUMBER(10) FOREIGN KEY

Which SELECT statement will accomplish this task?

Mark for Review

(1) Points

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s.sales
FROM employees e, sales_dept s
ORDER BY sales DESC
WHERE e.emp_id = s.emp_id AND sales > 50000 AND s.bonus IS NOT NULL;
```

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
ORDER BY sales DESC
FROM employees e, sales_dept s
WHERE e.emp_id = s.emp_id AND s.bonus IS NOT NULL AND sales > 50000;
```

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
WHERE e.emp_id = s.emp_id
FROM employees e, sales_dept s AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

```
SELECT e.emp_id, e.lname, e.fname, s.emp_id, s.bonus, s. sales
FROM employees e, sales_dept s
WHERE e.emp_id = s.emp_id AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

(*)

29. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
```

(*)

30. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

(*)

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

31. The EMPLOYEE_ID column in the EMPLOYEE table corresponds to the EMPLOYEE_ID column of the ORDER table. The EMPLOYEE_ID column in the ORDER table contains null values for rows that you need to display.

Which type of join should you use to display the data? Mark for Review

(1) Points

natural join

self-join

outer join (*)

equijoin

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

33. Which of the following best describes the function of an outer join? Mark
for Review
(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

34. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

35. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three)
Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

full outer join

36. You need to join two tables that have two columns with the same name and compatible data types. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

37. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

38. Evaluate this SELECT statement:

```
SELECT a.lname || ', ' || a.fname as "Patient", b.lname || ', ' || b.fname as "Physician", c.admission  
FROM patient a  
JOIN physician b  
ON (b.physician_id = c.physician_id);
```

JOIN admission c

ON (a.patient_id = c.patient_id);

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id); (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

40. For which condition would you use an equijoin query with the USING keyword?

Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

(*)

```
SELECT e.last_name, e.department_id, d.department_name
```

FROM employees e

JOIN departments d USING (e.department_id = d.department_id);

42. Which type of join returns rows from one table that have NO direct match in the other table?
Mark for Review

(1) Points

equijoin

self join

outer join (*)

natural join

43. What should be included in a SELECT statement to return NULL values from all tables?
Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

44. If a select list contains both a column as well as a group function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), dept_id  
FROM employee  
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEE table.

The latest hire date in the EMPLOYEE table.

The hire dates in the EMPLOYEE table that contain NULL values

46. Which statement about group functions is true?

Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

48. Which group function would you use to display the total of all salary values in the EMPLOYEE table? Mark for Review

(1) Points

SUM (*)

AVG

COUNT

MAX

49. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount) (*)

WHERE MAX(order_dt) = order_dt

SELECT location_id, MIN(AVG(order_amount)) (*)

Incorrect

Incorrect. Refer to Section 5

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

51. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

52. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

53. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

54. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

55. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

56. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points


```
SELECT COUNT(products);
```

```
SELECT COUNT FROM products;
```

```
SELECT COUNT (*) FROM products; (*)
```

```
SELECT ROWCOUNT FROM products
```

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

```
SELECT COUNT(discount) FROM line_item;
```

```
SELECT COUNT(*) FROM line_item; (*)
```

```
SELECT SUM(discount) FROM line_item;
```

```
SELECT AVG(discount) FROM line_it
```

58. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

```
SELECT * FROM employees  
WHERE salary > 50000;
```

```
SELECT * FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000;
```

(*)

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

59. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM products;
```

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

60. Evaluate this statement:

```
SELECT department_id, AVG(salary)
```

```
FROM employees
```

```
WHERE job_id <> 69879
```

```
GROUP BY job_id, department_id
```

```
HAVING AVG(salary) > 35000
```

```
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

```
GROUP BY job_id, department_id
```

```
HAVING AVG(salary) > 35000 (*)
```

61. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```

SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;

```

```

SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;

```

```

SELECT t.team_name, COUNT(p.player_id)
FROM players p JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;

```

(*)

62. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY location_id;
```

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```



```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

3. The PLAYERS table contains these columns:

```
PLAYER_ID NUMBER PK
PLAYER_NAME VARCHAR2 (30)
TEAM_ID NUMBER
HIRE_DATE DATE
SALARY NUMBER (8,2)
```

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

```
ORDER BY AVG(salary)
```

```
GROUP BY MAX(salary) (*)
```

```
SELECT AVG(NVL(salary, 0)) (*)
```

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

65. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

66. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id  
FROM employee  
GROUP BY dept_id;
```

How are the results of this statement sorted?

Mark for Review

(1) Points

Ascending order by dept_id (*)

Descending order by dept_id

Ascending order by cumulative salary

Descending order by cumulative salary

67. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, department_id, SUM(salary)
```

```
FROM employees
```

```
WHERE salary > 25000
```

```
GROUP BY department_id, id_number, name
```

```
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect

Incorrect. Refer to Section 6

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68. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

[Mark for Review](#)

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect

Incorrect. Refer to Section 6

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69. Which operator can be used with a multiple-row subquery? [Mark for Review](#)

(1) Points

IN (*)

<>

=

LIKE

70. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points

```
SELECT product_name
FROM products
WHERE cost > (SELECT AVG(cost) FROM product);
```

(*)

```
SELECT product_name
FROM products
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```

71. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

72. You need to display all the players whose salaries are greater than or equal to John Brown's salary. Which comparison operator should you use? Mark for Review

(1) Points

=

>

<=

>= (*)

73. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

75. Which statement about the <> operator is true?

Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

76. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

77. Which comparison operator would you use to compare a value to every value returned by a subquery? Mark for Review

(1) Points

SOME

ANY

ALL (*)

IN

Correct

Correct

78. Evaluate this SELECT statement:

SELECT player_id, name

FROM players

WHERE team_id IN

(SELECT team_id

 FROM teams

WHERE team_id > 300 AND salary_cap > 400000);

What would happen if the inner query returned a NULL value?

Mark for Review

(1) Points

No rows would be returned by the outer query. (*)

A syntax error in the outer query would be returned.

A syntax error in the inner query would be returned.

All the rows in the PLAYER table would be returned by the outer query.

79. What would happen if you attempted to use a single-row operator with a multiple-row subquery? Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect

Incorrect. Refer to Section 6

80. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more

81. Examine the structures of the PARTS and MANUFACTURERS tables:

PARTS:

PARTS_ID VARCHAR2(25)

PK PARTS_NAME VARCHAR2(50)

MANUFACTURERS_ID NUMBER

COST NUMBER(5,2)

PRICE NUMBER(5,2)

MANUFACTURERS:

ID NUMBER

PK NAME VARCHAR2(30)

LOCATION VARCHAR2(20)

Which SQL statement correctly uses a subquery?

Mark for Review

(1) Points

UPDATE parts SET price = price * 1.15

WHERE manufacturers_id =

(SELECT id

 FROM manufacturers

 WHERE UPPER(location) IN('ATLANTA', 'BOSTON', 'DALLAS'));


```
SELECT parts_name, price, cost
FROM parts
WHERE manufacturers_id !=
    (SELECT id
      FROM manufacturers
      WHERE LOWER(name) = 'cost plus');
```

```
SELECT parts_name, price, cost
FROM parts
WHERE manufacturers_id IN
    (SELECT id
      FROM manufacturers m
      JOIN part p ON (m.id = p.manufacturers_id));
```

(*)

```
SELECT parts_name
FROM
    (SELECT AVG(cost)
```

FROM manufacturers)

 WHERE cost > AVG(cost);

Correct

Correct

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82. Which of the following best describes the meaning of the ANY operator?

Mark for

Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

83. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SEL

84. Which statement about the ANY operator when used with a multiple-row subquery is true? Mark for Review

(1) Points

The ANY operator compares every value returned by the subquery. (*)

The ANY operator can be used with the DISTINCT keyword.

The ANY operator is a synonym for the ALL operator.

The ANY operator can be used with the LIKE and IN operators.

85. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? [Mark for Review](#)

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

86. You need to display all the products that cost more than the maximum cost of every product produced in Japan. Which multiple-row comparison operator could you use? Mark for Review

(1) Points

>ANY (*)

NOT=ALL

IN

>IN

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
(SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
FROM students  
  
WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

88. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(25)

PROD_PRICE NUMBER(3)

You want to add the following row data to the PRODUCTS table:

- (1) a NULL value in the PROD_ID column
- (2) "6-foot nylon leash" in the PROD_NAME column
- (3) "10" in the PROD_PRICE column

You issue this statement:

```
INSERT INTO products
```

```
VALUES (null, '6-foot nylon leash', 10);
```

What row data did you add to the table?

Mark for Review

(1) Points

The row was created with the correct data in all three columns. (*)

The row was created with the correct data in two of three columns.

The row was created with the correct data in one of the three columns.

The row was created completely wrong. No data ended up in the correct columns.

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```


(*)

```
INSERT INTO customers  
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers  
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers  
VALUES (200, InterCargo, 0, tflanders, samerica);
```

90. You need to add a row to an existing table. Which DML statement should you use? Mark
for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

91. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

92. What keyword in an UPDATE statement specifies the columns you want to change? Mark for Review

(1) Points

SELECT

WHERE

SET (*)

HAVING

93. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

```
UPDATE employees  
SET lname = 'cooper'  
WHERE lname = 'roper';
```

(*)

```
UPDATE employees lname = 'cooper'  
WHERE lname = 'roper';
```

```
UPDATE employees  
SET lname = 'roper'  
WHERE lname = 'cooper';
```

```
UPDATE employees  
SET cooper = 'lname'  
WHERE lname = 'roper';
```

94. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

INSERT (*)

SELECT

UPDATE (*)

95. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Incorrect

Incorrect. Refer to Section 7

96. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

Incorrect

Incorrect. Refer to Section 7

96. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

```
DELETE FROM products
WHERE supplier_id IN
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
```

(*)

```
DELETE FROM products
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products
WHERE supplier_id =
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products
WHERE supplier_id IN
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ALANTA');
```

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for

98. What would happen if you issued a DELETE statement without a WHERE clause? Mark
for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Incorrect

Incorrect. Refer to Section 7

99. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

```
UPDATE employee  
SET salary = SELECT salary  
FROM employee  
WHERE emp_id = 89898;
```

```
UPDATE employee  
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);
```

```
UPDATE employee  
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)  
WHERE dept = 10;
```

(*)

```
UPDATE employee  
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);
```

100. Which of the following represents the correct syntax for an INSERT statement? Mark for Review

(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES ('3178', 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777');
(*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

3. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

5. You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
```

```
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$') SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

7. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
FROM employee;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

Correct

9. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employee;  
(*)
```

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employee;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employee;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employee;
```

Incorrect. Refer to Section 1 Lesson 3

10. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. Which SELECT statement will NOT return a date value? Mark for Review

(1) Points

```
SELECT (30 + hire_date) + 1440/24  
FROM employees;
```

```
SELECT (SYSDATE - hire_date) + 10*8  
FROM employees;
```

(*)


```
SELECT SYSDATE - TO_DATE('25-JUN-02') + hire_date  
FROM employees;
```

```
SELECT (hire_date - SYSDATE) + TO_DATE('25-JUN-02')  
FROM employees;
```

Correct

12. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Correct

13. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Correct

14. You need to display the current year as a character value (for example: Two Thousand and One). Which element would you use? Mark for Review

(1) Points

RR

YY

YYYY

YEAR (*)

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

17. Which best describes the TO_CHAR function? Mark for Review

(1) Points

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

Correct

18. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders
```

WHERE total >= 2500;

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
(*)
```

Incorrect. Refer to Section 2

19. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

SELECT TO_CHAR(price, '\$99,900.99') FROM product; (*)

SELECT TO_CHAR(price, "\$99,900.99") FROM product;

SELECT TO_CHAR(price, '\$99,990.99') FROM product;

SELECT TO_NUMBER(price, '\$99,900.99') FROM product;

Correct

20. Which statement concerning single row functions is true? Mark for Review

(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')  
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees;
```

(*)

Correct

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

23. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	
--------	--------	-------	--

Evaluate this SELECT statement:

```
SELECT style_id, style_name, category, cost
```

```
FROM styles
```

```
WHERE style_name LIKE 'SANDAL' AND NVL(cost, 0) < 15.00
```

```
ORDER BY category, cost;
```

Which result will the query provide?

Mark for Review

(1) Points

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

758960	SANDAL	86979	
--------	--------	-------	--

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	
869506	SANDAL	89690	15.00

STYLE_ID	STYLE_NAME	CATEGORY	COST
968950	SANDAL	85909	10.00
895840	SANDAL	85940	12.00
758960	SANDAL	86979	

(*)

Correct

24. You need to replace null values in the DEPT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

TO_NUMBER and NULLIF

Correct

Section 3 Lesson 2

(Answer all questions in this section)

25. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;  
(*)
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

26. What is produced when a join condition is not specified in a multiple-table query? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Correct

27. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

28. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Correct

29. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales
FROM customers, sales
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
(*)
```

```
SELECT cust_id, company, total_sales
FROM customers c, sales s
WHERE c.cust_id = s.cust_id;
```

Correct

30. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
```

FROM employees

WHERE salary = 25000 AND dept_id = 10;

SELECT last_name, first_name, salary

FROM employees

WHERE salary <= 25000 AND dept_id = 10;

SELECT last_name, first_name, salary

FROM employees

WHERE salary != 25000 AND dept_id = 10;

(*)

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Which two operators can be used in an outer join condition using the outer join operator (+)?

Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

32. Which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

33. Which of the following best describes the function of an outer join? Mark for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Correct

35. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Correct

36. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

full outer join

Incorrect. Refer to Section 4

Section 4 Lesson 3

(Answer all questions in this section)

37. Evaluate this SELECT statement:

```
SELECT a.lname || ', ' || a.fname as "Patient", b.lname || ', ' || b.fname as "Physician", c.admission  
FROM patient a  
JOIN physician b  
ON (b.physician_id = c.physician_id);  
JOIN admission c
```


ON (a.patient_id = c.patient_id);

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id); (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Correct

39. Which SELECT clause creates an equijoin by specifying a column name common to both tables?
Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

40. For which condition would you use an equijoin query with the USING keyword? Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Correct

43. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)
FROM employees
GROUP BY job_id;
```

Mark for Review

(1) Points

Displays all the employees and groups them by job.

Displays each job id and the number of people assigned to that job id. (*)

Displays only the number of job_ids.

Displays all the jobs with as many people as there are jobs.

Correct

45. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Correct

46. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

The first column listed in the GROUP BY clause is the most major grouping. (*)

The last column listed in the GROUP BY clause is the most major grouping.

The GROUP BY clause can contain an aggregate function.

A GROUP BY clause cannot be used without an ORDER BY clause.

Correct

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Correct

Section 5 Lesson 2

(Answer all questions in this section)

48. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

49. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Correct

50. The CUSTOMER table contains these columns:

CUSTOMER_ID NUMBER(9)

FNAME VARCHAR2(25)

LNAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Which group function would you use to display the average price of all products in the PRODUCTS table? Mark for Review

(1) Points

SUM

AVG (*)

COUNT

MAX

Correct

52. Which group function would you use to display the highest salary value in the EMPLOYEE table?
Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
(*)
```

```
SELECT AVG(payment_amount)
FROM payment;
```

```
SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
FROM payment
WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);
```

Correct

54. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

Correct

55. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. Which statement about the COUNT function is true? Mark for Review

(1) Points

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

Incorrect. Refer to Section 5

57. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

SELECT * FROM employees
WHERE salary > 50000;

SELECT * FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary < 50000;

SELECT COUNT(*) FROM employees
WHERE salary > 50000;

(*)

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

Correct

58. Group functions can avoid computations involving duplicate values by including which keyword?
Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Correct

59. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Correct

Section 6 Lesson 1

(Answer all questions in this section)

60. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER(9) PK

CATEGORY_ID VARCHAR2(10)

LOCATION_ID NUMBER(9)

DESCRIPTION VARCHAR2(30)

COST NUMBER(7,2)

PRICE NUMBER(7,2)

QUANTITY NUMBER

You display the total of the extended costs for each product category by location. You need to include only the products that have a price less than \$25.00. The extended cost of each item equals the quantity value multiplied by the cost value.

Which SQL statement will display the desired result?

Mark for Review

(1) Points

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price > 25.00
GROUP BY category_id, location_id;
```

```
SELECT SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY location_id;
```

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY category_id, location_id;
(*)
```

```
SELECT SUM(cost * quantity) TOTAL
FROM products
WHERE price < 25.00;
```

Incorrect. Refer to Section 6

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id
```

```
FROM employee
```

```
GROUP BY dept_id;
```

How are the results of this statement sorted?

Mark for Review

(1) Points

Ascending order by dept_id (*)

Descending order by dept_id

Ascending order by cumulative salary

Descending order by cumulative salary

Correct

62. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Correct

63. Evaluate this SELECT statement:

SELECT SUM(salary), dept_id, mgr_id

FROM employee

GROUP BY dept_id, mgr_id;

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

64. The MANUFACTURER table contains these columns:

MANUFACTURER_IDNUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_IDNUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

SELECT location_id, COUNT(DISTINCT type)

FROM manufacturer

GROUP BY location_id;

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Incorrect. Refer to Section 6

65. Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name
FROM employee
WHERE dept_id = 1
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section 6

66. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

67. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
(*)
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
```

Incorrect. Refer to Section 6

Section 6 Lesson 2

(Answer all questions in this section)

68. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Correct

69. Which operator can be used with subqueries that return only one row? Mark for Review

(1) Points

LIKE (*)

ANY

ALL

IN

Correct

70. If you use the equality operator (=) with a subquery, how many values can the subquery return?
Mark for Review

(1) Points

only 1 (*)

up to 2

up to 5

unlimited

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. You need to display all the players whose salaries are greater than or equal to John Brown's salary. Which comparison operator should you use? Mark for Review

(1) Points

=

>

<=

>= (*)

Correct

72. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
FROM employees  
WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
  (SELECT employee_id  
   FROM supervisors  
   WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
  (SELECT employee_id  
   FROM employees  
   WHERE last_name = 'Carter');
```

(*)

Correct

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Correct

Section 6 Lesson 4

(Answer all questions in this section)

76. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
  (SELECT customer_id  
   FROM customer  
   WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Correct

77. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

78. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

SELECT description

FROM d_types

WHERE code IN (SELECT type_code FROM d_songs);


```
SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Correct

79. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
FROM payment
WHERE payment_id =
    (SELECT payment_id
     FROM payment
     WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Correct

80. What is wrong with the following query?

```
SELECT employee_id, last_name  
FROM employees  
WHERE salary =  
      (SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Evaluate this SELECT statement:

```
SELECT player_id, name
FROM players
WHERE team_id IN
    (SELECT team_id
     FROM teams
     WHERE team_id > 300 AND salary_cap > 400000);
```

What would happen if the inner query returned a NULL value?

Mark for Review

(1) Points

No rows would be returned by the outer query. (*)

A syntax error in the outer query would be returned.

A syntax error in the inner query would be returned.

All the rows in the PLAYER table would be returned by the outer query.

Correct

82. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name
```

```
FROM customer
```

```
WHERE area_code IN
```

```
(SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Correct

83. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

84. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

85. Which statement about the ANY operator when used with a multiple-row subquery is true? Mark for Review

(1) Points

The ANY operator compares every value returned by the subquery. (*)

The ANY operator can be used with the DISTINCT keyword.

The ANY operator is a synonym for the ALL operator.

The ANY operator can be used with the LIKE and IN operators.

Correct

86. What would happen if you attempted to use a single-row operator with a multiple-row subquery?
Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

88. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

```
INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)
```

```
INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);
```

```
INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');
```

```
INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);
```

Correct

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Correct

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

92. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Correct

93. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You need to increase the salary for all employees in department 10 by 10 percent. You also need to increase the bonus for all employees in department 10 by 15 percent. Which statement should you use?

Mark for Review

(1) Points

UPDATE employees

SET salary = salary * 1.10, bonus = bonus * 1.15

WHERE dept = 10;

(*)

```
UPDATE employees  
SET salary = salary * 1.10 AND bonus = bonus * 1.15  
WHERE dept = 10;
```

```
UPDATE employees  
SET (salary = salary * 1.10) SET (bonus = bonus * 1.15)  
WHERE dept = 10;
```

```
UPDATE employees  
SET salary = salary * .10, bonus = bonus * .15  
WHERE dept = 10;
```

Incorrect. Refer to Section 7

95. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

```
EMP_ID NUMBER(10) PRIMARY KEY  
  
LNAME VARCHAR2(20)
```


FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

UPDATE employees

```
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Correct

96. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review
(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

97. Which of the following represents the correct syntax for an INSERT statement? Mark for Review
(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES ('3178', 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777'); (*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Correct

98. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Correct

1. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

2. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

4. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	11.00

You query the database and return the value 40. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

(*)

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

Correct

You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')  
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

6. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

7. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$') SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

Mark for Review

(1) Points

1200

1282

1282.25

1300 (*)

Correct

9. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

10. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

11. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Correct

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS(*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

15. Evaluate this SELECT statement:

```
SELECT SYSDATE + 30
```

```
FROM dual;
```

Which value is returned by the query?

Mark for Review

(1) Points

the current date plus 30 hours

the current date plus 30 days (*)

the current date plus 30 months

No value is returned because the SELECT statement generates an error.

Incorrect. Refer to Section 1

16. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

SELECT TO_CHAR(price, '\$99,900.99') FROM product; (*)

SELECT TO_CHAR(price, "\$99,900.99") FROM product;

SELECT TO_CHAR(price, '\$99,990.99') FROM product;

SELECT TO_NUMBER(price, '\$99,900.99') FROM product;

Correct

17. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

18. The EMPLOYEES table contains these columns:

EMPLOYEE_IDNUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
(*)
```

```
SELECT hire_date(TO_CHAR 'Month DD', ' YYYY')
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', ' YYYY')
FROM employees;
```

Incorrect. Refer to Section 2

19. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

20. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')
```

```
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')
```

```
FROM employees;
```

(*)

Incorrect. Refer to Section 2

21. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

22. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

23. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
FROM student_accounts;
(*)
```

```
SELECT NVL(tuition_balance, 0), NVL (housing_balance), tuition_balance + housing_balance "Balance
Due"
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER (housing_balance, 0), tuition_balance +
housing_balance "Balance Due"
```

FROM student_accounts;

Incorrect. Refer to Section 2

24. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Correct

26. You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
```

WHERE salary <= 25000 AND dept_id = 10;

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;
(*)
```

Correct

27. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales  
FROM customers, sales  
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;  
(*)
```

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

Correct

28. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;  
(*)
```

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

Correct

29. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Incorrect. Refer to Section

30. Which statement about the join syntax of a SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

31. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Correct

32. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name
```

```
FROM player p
```

LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)

LEFT OUTER JOIN team t ON (p.team_id = t.team_id);

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Correct

33. Which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Incorrect. Refer to Section 3

34. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Incorrect. Refer to Section 4

35. You need to join all the rows in the EMPLOYEE table to all the rows in the EMP_REFERENCE table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

36. Which of the following best describes a natural join? Mark for Review

(1) Points

A join between two tables that includes columns that share the same name, datatypes and lengths (*)

A join that produces a Cartesian product

A join between tables where matching fields do not exist

A join that uses only one table

Correct

37. Which SELECT clause creates an equijoin by specifying a column name common to both tables?

Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

38. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Incorrect. Refer to Section 4

39. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers
```

```
(custid varchar2(5),
```

```
companyname varchar2(30),
```

```
contactname varchar2(30),
```

```
address varchar2(30),
```

```
city varchar2(20),
```

```
state varchar2(30),
```

```
phone varchar2(20),
```

```
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders
```

```
(orderid varchar2(5) constraint pk_orders_01 primary key,
```

```
orderdate date,
```

```
total number(15),
```

```
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname  
FROM customers  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
NATURAL JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';  
(* )
```

```
SELECT orderid, orderdate, total  
FROM orders  
WHERE city = 'Nashville';
```

Correct

40. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name  
FROM customers c  
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);  
(*)
```

```
SELECT c.customer_name  
FROM customers c, sales_order s  
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name  
FROM customers c, sales_order s  
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name  
FROM customers c  
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

41. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

(*)

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
```

JOIN departments d USING (e.department_id = d.department_id);

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. What should be included in a SELECT statement to return NULL values from all tables? Mark for Review

(1) Points

natural joins

left outer joins

full outer joins (*)

right outer joins

Incorrect. Refer to Section 4

44. If a select list contains both a column as well as a group function then what clause is required?

Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

45. Evaluate this SELECT statement:

```
SELECT MAX(salary), dept_id  
FROM employee  
GROUP BY dept_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Incorrect. Refer to Section 5

46. Which statement about group functions is true? Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

Incorrect. Refer to Section 5

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Incorrect. Refer to Section 5

48. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

49. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485	8549038	15-FEB-03	INTEREST	596.00
----------	---------	-----------	----------	--------

85490345	5489304	20-MAR-03	BASIC	568.00
----------	---------	-----------	-------	--------

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
(*)
```

```
SELECT AVG(payment_amount)
FROM payment;
```

```
SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
FROM payment
WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);
```

Correct

50. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

51. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount) (*)

WHERE MAX(order_dt) = order_dt

SELECT location_id, MIN(AVG(order_amount)) (*)

Incorrect. Refer to Section 5

52. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Incorrect. Refer to Section 5

53. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

Correct

54. Which group functions below act on character, number and date data types?

(Choose more than one answer) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

55. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

56. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	
--------	--------	-------	--

You issue this SELECT statement:

```
SELECT COUNT(category)
```

```
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Incorrect. Refer to Section 5

57. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
--------------	----------	------------	-------	----------

890898	847589	848399	8.99	0.10
--------	--------	--------	------	------

768385	862459	849869	5.60	0.05
--------	--------	--------	------	------

867950 985490 945809 5.60

954039 439203 438925 5.25 0.15

543949 349302 453235 4.50

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Incorrect. Refer to Section 5

58. Group functions can avoid computations involving duplicate values by including which keyword?

Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Incorrect. Refer to Section 5

59. Evaluate this SELECT statement:

SELECT COUNT(*)

FROM products;

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

Incorrect. Refer to Section 5

60. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary)

GROUP BY MAX(salary) (*)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

61. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

SELECT location_id, COUNT(DISTINCT type)

FROM manufacturer

GROUP BY location_id;

(*)

SELECT location_id, COUNT(DISTINCT type)

FROM manufacturer;

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Correct

62. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

```
SELECT
FROM
WHERE
ORDER BY
HAVING
```

```
SELECT
FROM
```


HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

Correct

63. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
(*)
```

```
SELECT MIN (prod_price), prod_cat
```

FROM products

GROUP BY MIN (prod_price), prod_cat;

SELECT prod_price, MIN (prod_cat)

FROM products

GROUP BY prod_cat;

Correct

64. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

SELECT id_number, name, department_id, SUM(salary)

FROM employees

WHERE salary > 25000

GROUP BY department_id, id_number, name

ORDER BY hire_date;

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Correct

65. Evaluate this SELECT statement:

SELECT SUM(salary), dept_id, department_name

FROM employee

WHERE dept_id = 1

GROUP BY department;

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Incorrect. Refer to Section

66. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than five pitchers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER' HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'PITCHER'
```

GROUP BY t.team_name HAVING COUNT(p.player_id) > 5;

(*)

Incorrect. Refer to Section 6

67. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Incorrect. Refer to Section 6

68. Using a subquery in which clause will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

Incorrect. Refer to Section 6

69. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

WHERE max_capacity=(SELECT AVG(max_capacity) FROM class_assignments);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM teachers

WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);

Incorrect. Refer to Section 6

71. The EMPLOYEES and ORDERS tables contain these columns:

EMPLOYEES

EMP_ID NUMBER(10) NOT NULL PRIMARY KEY

FNAME VARCHAR2(30)

LNAME VARCHAR2(30)

ADDRESS VARCHAR2(25)

CITY VARCHAR2(20)

STATE VARCHAR2(2)

ZIP NUMBER(9)

TELEPHONE NUMBER(10)

ORDERS

ORDER_ID NUMBER(10) NOT NULL PRIMARY KEY

EMP_ID NUMBER(10) NOT NULL FOREIGN KEY

ORDER_DATE DATE

TOTAL NUMBER(10)

Which SELECT statement will return all orders generated by a sales representative named Franklin during the year 2001?

Mark for Review

(1) Points

SELECT order_id, total

FROM ORDERS (SELECT emp_id FROM employees WHERE lname = 'Franklin')

WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';

```
SELECT (SELECT emp_id FROM employees WHERE lname = 'Franklin') AND order_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT order_id, emp_id, total  
FROM ORDERS  
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01' AND emp_id = 'Franklin';
```

```
SELECT order_id, total  
FROM ORDERS  
WHERE emp_id = (SELECT emp_id FROM employees WHERE lname = 'Franklin')  
AND order_date BETWEEN '01-jan-01' AND '31-dec-01';  
(*)
```

Correct

72. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Incorrect. Refer to Section 6

73. You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
  (SELECT employee_id
```

```
    FROM supervisors
```

```
WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
(SELECT employee_id
```

```
FROM employees
```

```
WHERE last_name = 'Carter');
```

```
(*)
```

Incorrect. Refer to Section 6

74. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

76. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

77. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description
FROM d_types
WHERE code IN (SELECT type_code FROM d_songs);

SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Incorrect. Refer to Section 6

78. Evaluate this SELECT statement:

```
SELECT customer_id, name
```

```
FROM customer
```

```
WHERE customer_id IN
```

```
(SELECT customer_id
```

```
FROM customer
```

```
WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

79. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Incorrect. Refer to Section 6

80. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

81. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Incorrect. Refer

82. What would happen if you attempted to use a single-row operator with a multiple-row subquery?

Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Incorrect. Refer to Section 6

83. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

84. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
FROM payment
WHERE payment_id =
(SELECT payment_id
FROM payment
WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name
```

```
FROM employees
```

```
WHERE salary =
```

```
(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
```


WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Incorrect. Refer to Section 6

87. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
```

```
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Incorrect. Refer

89. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id VALUES (2958, 'Cable', 8690, SYSDATE);

Incorrect. Refer to Section 7

90. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

```
UPDATE employees  
SET lname = 'cooper'  
WHERE lname = 'roper';  
(*)
```

```
UPDATE employees lname = 'cooper'  
WHERE lname = 'roper';
```

```
UPDATE employees  
SET lname = 'roper'  
WHERE lname = 'cooper';
```

```
UPDATE employees  
SET cooper = 'lname'  
WHERE lname = 'roper';
```

Incorrect. Refer to Section 7

92. You need to remove a row from the EMPLOYEE table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

93. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Correct

94. The EMPLOYEES table contains the following columns:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee number 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

UPDATE employee

SET salary = SELECT salary

FROM employee

WHERE emp_id = 89898;

UPDATE employee

SET salary = (SELECT salary FROM employee WHERE emp_id = 89898);


```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898)
WHERE dept = 10;
(*)
```

```
UPDATE employee
SET salary = (SELECT salary FROM employee WHERE emp_id = 89898 AND dept = 10);
```

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Correct

97. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

98. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

ID_NUM NUMBER(5) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE id_num = 348; (*)

DELETE FROM employees WHERE lname = jones;

DELETE * FROM employees WHERE id_num = 348;

DELETE 'jones' FROM employees;

Correct

99. You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

100. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Correct

Section 1 Lesson 1

(Answer all questions in this section)

1. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

2. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	12.00

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

(*)

Correct

3. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

4. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

5. Which functions can be used to manipulate character, number, and date column values? Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

Incorrect. Refer to Section 1

6. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name, first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

7. You query the database with this SQL statement:

```
SELECT CONCAT(last_name, (SUBSTR(LOWER(first_name), 4))) "Default Password"  
FROM employees;
```

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

9. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Correct

10. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employees;  
(*)
```

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employees;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employees;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employees;
```

Correct

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Section 1 Lesson 3

(Answer all questions in this section)

11. Which SELECT statement will NOT return a date value? Mark for Review

(1) Points

```
SELECT (30 + hire_date) + 1440/24  
FROM employees;
```

```
SELECT (SYSDATE - hire_date) + 10*8  
FROM employees;
```

(*)

```
SELECT SYSDATE - TO_DATE('25-JUN-02') + hire_date  
FROM employees;
```

```
SELECT (hire_date - SYSDATE) + TO_DATE('25-JUN-02')  
FROM employees;
```

Incorrect. Refer to Section 1

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Correct

13. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

```
SELECT orderid, total  
FROM orders  
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )  
ORDER BY total;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

(*)


```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'  
ORDER BY total DESC;
```

Correct

14. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

15. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

SELECT hire_date + eval_months

FROM employees;

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

17. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

18. Which best describes the TO_CHAR function? Mark for Review

(1) Points

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

Incorrect. Refer to Section 2

19. Which statement concerning single row functions is true? Mark for Review

(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

Incorrect. Refer to Section 2

20. Which three statements concerning explicit data type conversions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

Correct

Page 2 of 10

Section 2 Lesson 1

(Answer all questions in this section)

21. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

HIRE_DATE DATE

You need to display HIRE_DATE values in this format:

January 28, 2000

Which SELECT statement could you use?

Mark for Review

(1) Points

```
SELECT TO_CHAR(hire_date, Month DD, YYYY)
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD, YYYY')
FROM employees;
```

(*)

```
SELECT hire_date(TO_CHAR 'Month DD', 'YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'Month DD', 'YYYY')  
FROM employees;
```

Incorrect. Refer to Section 2

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Incorrect. Refer to Section 2

24. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
FROM student_accounts;

(*)
```

```
SELECT NVL(tuition_balance, 0), NVL (housing_balance), tuition_balance + housing_balance "Balance
Due"
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER (housing_balance, 0), tuition_balance +
housing_balance "Balance Due"
FROM student_accounts;
```

Correct

Section 3 Lesson 2

(Answer all questions in this section)

25. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name  
FROM employees e, departments d  
WHERE e.department_id = d.department_id AND employees.department_id > 5000  
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

```
FROM employees e, departments d
```

```
WHERE e.department_id = d.department_id
```

```
AND employees.department_id > 5000 (*)
```

```
ORDER BY 4;
```

Incorrect. Refer to Section 3

26. What is the minimum number of join conditions required to join 5 tables together? Mark for Review

(1) Points

3

4 (*)

5

One more than the number of tables

Incorrect. Refer to Section 3

27. You need to create a report that lists all employees in department 10 (Sales) whose salary is not equal to \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND department_id = 10;
```

(*)

Correct

28. Which statement about the join syntax of an Oracle Proprietary join syntax SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Correct

29. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales  
FROM customers, sales  
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;  
(*)
```

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

Correct

30. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated \$100,000, or more, in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees e, sales s  
WHERE e.employee_id = s.employee_id AND revenue > 100000;
```

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees e, sales s  
WHERE e.employee_id = s.employee_id AND revenue >= 100000;  
(*)
```

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees, sales  
WHERE e.employee_id = s.employee_id AND revenue >= 100000;
```

```
SELECT first_name, last_name, sales  
Q FROM employees e, sales s
```


WHERE e.employee_id = s.employee_id AND revenue > 100000;

Correct

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Section 3 Lesson 4

(Answer all questions in this section)

31. The EMPLOYEE_ID column in the EMPLOYEES table corresponds to the EMPLOYEE_ID column of the ORDERS table. The EMPLOYEE_ID column in the ORDERS table contains null values for rows that you need to display.

Which type of join should you use to display the data? Mark for Review

(1) Points

natural join

self-join

outer join (*)

equijoin

Correct

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Correct

33. Using Oracle Proprietary join syntax, which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. The following SQL statement will produce what output?

```
SELECT last_name, department_name
```

```
FROM employees
```

```
CROSS JOIN departments;
```

Mark for Review

(1) Points

The missing rows from the join condition.

The last_name and department name from the employee table.

A Cartesian product between the two tables. (*)

A cross referenced result omitting similar fields from the two tables.

Correct

35. You need to join two tables that have two columns with the same name, datatype and precision. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

Correct

36. You need to join all the rows in the EMPLOYEES table to all the rows in the EMP_REFERENCES table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Correct

Section 4 Lesson 3

(Answer all questions in this section)

37. For which condition would you use an equijoin query with the USING keyword? Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

Incorrect. Refer to Section 4

38. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name
FROM customers c
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Correct

39. Which of the following statements is the simplest description of a nonequijoin? Mark for Review
(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Correct

40. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers
```

```
(custid varchar2(5),
```

```
companyname varchar2(30),
```

```
contactname varchar2(30),
```

```
address varchar2(30),
```

```
city varchar2(20),
```

```
state varchar2(30),
```

```
phone varchar2(20),
```

```
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders
```

```
(orderid varchar2(5) constraint pk_orders_01 primary key,
```

```
orderdate date,
```

```
total number(15),
```

```
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname  
FROM customers  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
NATURAL JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total  
FROM orders o  
JOIN customers c ON o.custid = c.custid  
WHERE city = 'Nashville';
```

(*)

```
SELECT orderid, orderdate, total  
FROM orders  
WHERE city = 'Nashville';
```

Correct

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Section 4 Lesson 4

(Answer all questions in this section)

41. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Correct

42. Which query represents the correct syntax for a left outer join? Mark for Review

(1) Points

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT JOIN orders o  
ON c.cust_id = o.cust_id;
```

```
SELECT companyname, orderdate, total  
FROM customers c  
OUTER JOIN orders o  
ON c.cust_id = o.cust_id;
```

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT OUTER JOIN orders o  
ON c.cust_id = o.cust_id;
```

(*)

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT OUTER orders o  
ON c.cust_id = o.cust_id;
```

Correct

43. Which type of join returns rows from one table that have NO direct match in the other table?
Mark for Review

(1) Points

equijoin

self join

outer join (*)

natural join

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Correct

45. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Correct

46. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

The first column listed in the GROUP BY clause is the most major grouping. (*)

The last column listed in the GROUP BY clause is the most major grouping.

The GROUP BY clause can contain an aggregate function.

A GROUP BY clause cannot be used without an ORDER BY clause.

Correct

47. If a select list contains both columns as well as groups function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Correct

Section 5 Lesson 2

(Answer all questions in this section)

48. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Correct

49. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

Incorrect. Refer to Section 5

50. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Correct

Section 5 Lesson 2

(Answer all questions in this section)

51. Which aggregate function can be used on a column of the DATE data type? Mark for Review

(1) Points

AVG

MAX (*)

STDDEV

SUM

Correct

52. Which group function would you use to display the lowest value in the SALES_AMOUNT column? Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Correct

53. Which group functions below act on character, number and date data types?

(Choose three) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

54. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

Incorrect. Refer to Section 5

55. Which group function would you use to display the average price of all products in the PRODUCTS table? Mark for Review

(1) Points

SUM

AVG (*)

COUNT

MAX

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. Group functions can avoid computations involving duplicate values by including which keyword?

Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Correct

57. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

You issue this SELECT statement:

```
SELECT COUNT(category)
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Correct

58. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM employees
```

```
WHERE salary > 30000;
```

Which results will the query display?

Mark for Review

(1) Points

The number of employees that have a salary less than 30000.

The total of the SALARY column for all employees that have a salary greater than 30000.

The number of rows in the EMPLOYEES table that have a salary greater than 30000. (*)

The query generates an error and returns no results.

Correct

59. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Correct

Section 6 Lesson 1

(Answer all questions in this section)

60. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than three goal keepers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'GOAL KEEPER'
```

```
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
```

```
FROM players JOIN teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'GOAL KEEPER' HAVING COUNT(p.player_id) > 3;
```

```
SELECT t.team_name, COUNT(p.player_id)
```

```
FROM players p, teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'GOAL KEEPER'
```

```
GROUP BY t.team_name HAVING COUNT(p.player_id) > 3;
```

```
SELECT t.team_name, COUNT(p.player_id)
```

```
FROM players p JOIN teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'GOAL KEEPER'
```

```
GROUP BY t.team_name HAVING COUNT(p.player_id) > 3;
```

```
(*)
```

Correct

Section 6 Lesson 1

(Answer all questions in this section)

61. Evaluate this SELECT statement:

```
SELECT COUNT(emp_id), mgr_id, dept_id  
FROM employee  
WHERE status = 'I'  
GROUP BY dept_id  
HAVING salary > 30000  
ORDER BY 2;
```

Why does this statement return a syntax error?

Mark for Review

(1) Points

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

Correct

62. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id  
FROM employees  
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

63. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
```

(*)

```
SELECT MIN (prod_price), prod_cat  
FROM products  
GROUP BY MIN (prod_price), prod_cat;
```

```
SELECT prod_price, MIN (prod_cat)  
FROM products  
GROUP BY prod_cat;
```

Correct

64. The EMPLOYEES table contains these columns:

ID_ NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_ DATE DATE

Evaluate this SQL statement:


```
SELECT id_number, name, hire_date, department_id, SUM(salary)
FROM employees
WHERE salary > 25000
GROUP BY department_id, id_number, name
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Correct

65. You want to write a report that returns the average salary of all employees in the company, sorted by departments. The EMPLOYEES table contains the following columns:

EMPLOYEES:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which SELECT statement will return the information that you require?

Mark for Review

(1) Points

SELECT salary (AVG)

FROM employees

GROUP BY department;

SELECT AVG (salary)

FROM employees

GROUP BY department;

(*)

SELECT AVG (salary)

FROM employees

BY department;

```
SELECT AVG salary  
FROM employees  
BY department;
```

Correct

66. Evaluate this statement:

```
SELECT department_id, AVG(salary)  
FROM employees  
WHERE job_id <> 69879  
GROUP BY job_id, department_id  
HAVING AVG(salary) > 35000  
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

SELECT department_id, AVG(salary)

WHERE job_id <> 69879 (*)

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000 (*)

Correct

67. Evaluate this SELECT statement:

SELECT SUM(salary), department_id, department_name

FROM employees

WHERE department_id = 1

GROUP BY department;

Which clause of the SELECT statement contains a syntax error?

Mark for Review

(1) Points

SELECT

FROM

WHERE

GROUP BY (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Correct

69. If you use the equality operator (=) with a subquery, how many values can the subquery return?

Mark for Review

(1) Points

only 1 (*)

up to 2

up to 5

unlimited

Incorrect. Refer to Section 6

70. Using a subquery in which of the following clauses will return a syntax error? Mark for Review
(1) Points

WHERE

FROM

HAVING

You can use subqueries in all of the above clauses. (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

71. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Correct

72. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. Examine the following EMPLOYEES table:

EMPLOYEES

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

SUPERVISOR_ID NUMBER(9)

You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task?

Mark for Review

(1) Points

```
SELECT *  
  
FROM employees  
  
WHERE supervisor_id =  
  
    (SELECT supervisor_id  
  
     FROM employees  
  
     WHERE last_name = 'Carter');
```

```
SELECT *  
  
FROM supervisors  
  
WHERE supervisor_id =  
  
    (SELECT supervisor_id  
  
     FROM employees  
  
     WHERE last_name = 'Carter');
```

```
SELECT *  
  
FROM supervisors  
  
WHERE supervisor_id =  
  
    (SELECT employee_id
```

```
FROM supervisors  
WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT employee_id  
     FROM employees  
     WHERE last_name = 'Carter');  
(*)
```

Incorrect. Refer to Section 6

74. Which statement about the <> operator is true? Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

Correct

75. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Correct

Section 6 Lesson 4

(Answer all questions in this section)

76. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

77. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name
```

```
FROM customer
```

```
WHERE area_code IN
```

```
(SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Incorrect. Refer to Section 6

78. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

79. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)
LAST_NAME VARCHAR2(25)
FIRST_NAME VARCHAR2(25)
DEPARTMENT_ID NUMBER(9)
MANAGER_ID NUMBER(9)
SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)
OLD_DEPT_ID NUMBER(9)
NEW_DEPT_ID NUMBER(9)
CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
      (SELECT employee_id, new_dept_id
       FROM depart_hist
       WHERE old_dept_id = 15) AND new_dept_id = 10;
```

(*)


```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id) IN
(SELECT employee_id
FROM employee_hist
WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) =
(SELECT employee_id, new_dept_id
FROM depart_hist
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
(SELECT employee_id, dept_id
FROM employee
WHERE old_dept_id = 15);
```

Correct

80. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Correct

Section 6 Lesson 4

(Answer all questions in this section)

81. Which comparison operator would you use to compare a value to every value returned by a subquery? Mark for Review

(1) Points

SOME

ANY

ALL (*)

IN

Correct

82. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
```

```
FROM employees
```

```
WHERE department_id IN
```

```
(SELECT department_id  
FROM departments  
WHERE department_name = 'Executive');
```

Mark for Review

(1) Points

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

Correct

83. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

84. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Correct

85. You need to display all the products that cost more than the maximum cost of every product produced in Japan. Which multiple-row comparison operator could you use? Mark for Review

(1) Points

>ANY (*)

NOT=ALL

IN

>IN

Correct

86. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description
FROM d_types
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. Which statement about the VALUES clause of an INSERT statement is true? Mark for Review

(1) Points

If no column list is specified, then the values must be in the order the columns are specified in the table. (*)

The VALUES clause in an INSERT statement is optional.

Character, date, and numeric data must be enclosed within single quotes in the VALUES clause.

To specify a null value in the VALUES clause, use an empty string (' ').

Incorrect. Refer to Section 7

88. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Correct

89. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);

Correct

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments(department_id, department_name, manager_id, location_id)
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

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Section 7 Lesson 2

(Answer all questions in this section)

91. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee id 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

UPDATE employees

SET salary = SELECT salary

FROM employees

WHERE employee_id = 89898;

UPDATE employees

SET salary = (SELECT salary FROM employees WHERE employee_id = 89898);

UPDATE employees

SET salary = (SELECT salary FROM employees WHERE employee_id = 89898)

WHERE department_id = 10;

(*)

UPDATE employees

SET salary = (SELECT salary FROM employees WHERE employee_id = 89898 AND department_id = 10);

Correct

92. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

93. You need to remove a row from the EMPLOYEES table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

94. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Correct

95. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You need to increase the salary for all employees in department 10 by 10 percent. You also need to increase the bonus for all employees in department 10 by 15 percent. Which statement should you use?

Mark for Review

(1) Points

UPDATE employees

SET salary = salary * 1.10, bonus = bonus * 1.15

WHERE department_id = 10;

(*)

UPDATE employees

SET salary = salary * 1.10 AND bonus = bonus * 1.15

WHERE department_id = 10;

```
UPDATE employees
SET (salary = salary * 1.10) SET (bonus = bonus * 1.15)
WHERE department_id = 10;
```

```
UPDATE employees
SET salary = salary * .10, bonus = bonus * .15
WHERE department_id = 10;
```

Correct

96. What keyword in an UPDATE statement specifies the columns you want to change? Mark for Review

(1) Points

SELECT

WHERE

SET (*)

HAVING

Incorrect. Refer to Section 7

97. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Correct

98. You need to update the expiration date of products manufactured before June 30th. In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

99. Which of the following represents the correct syntax for an INSERT statement? Mark for Review

(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES (3178, 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777'); (*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Correct

100. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

SET last_name = 'cooper'

WHERE last_name = 'roper';

(*)

UPDATE employees last_name = 'cooper'

WHERE last_name = 'roper';

UPDATE employees

```
SET last_name = 'roper'  
WHERE last_name = 'cooper';
```

```
UPDATE employees  
SET cooper = 'last_name'  
WHERE last_name = 'roper';
```

Correct

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Section 1 Lesson 1

(Answer all questions in this section)

1. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)), 1, 5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

2. Which SQL function is used to return the position where a specific character string begins within a larger character string? Mark for Review

(1) Points

CONCAT

INSTR (*)

LENGTH

SUBSTR

Correct

3. Which functions can be used to manipulate character, number, and date column values? Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

Correct

4. You query the database with this SQL statement:

```
SELECT CONCAT(last_name, (SUBSTR(LOWER(first_name), 4))) "Default Password"  
FROM employees;
```

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

5. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Correct

6. You need to display the number of characters in each customer's last name. Which function should you use? Mark for Review

(1) Points

LENGTH (*)

LPAD

COUNT

SUBSTR

Correct

7. The PRICE table contains this data:

PRODUCT_ID	MANUFACTURER_ID
------------	-----------------

86950	59604
-------	-------

You query the database and return the value 95. Which script did you use?

Mark for Review

(1) Points

```
SELECT SUBSTR(product_id, 3, 2)
FROM price
WHERE manufacturer_id = 59604;
(*)
```

```
SELECT LENGTH(product_id, 3, 2)
```

FROM price

WHERE manufacturer_id = 59604;

SELECT SUBSTR(product_id, -1, 3)

FROM price

WHERE manufacturer_id = 59604;

SELECT TRIM(product_id, -3, 2)

FROM price

WHERE manufacturer_id = 59604;

Incorrect. Refer to Section 1

Section 1 Lesson 2

(Answer all questions in this section)

8. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

Correct

9. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
```

```
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

10. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')
```

```
FROM employees;
```

(*)

```
SELECT ROUND(hire_date, 'MONTH')
```

```
FROM employees;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employees;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employees;
```

Section 1 Lesson 3

(Answer all questions in this section)

11. Which SELECT statement will NOT return a date value? Mark for Review

(1) Points

```
SELECT (30 + hire_date) + 1440/24  
FROM employees;
```

```
SELECT (SYSDATE - hire_date) + 10*8  
FROM employees;
```

(*)

```
SELECT SYSDATE - TO_DATE('25-JUN-02') + hire_date  
FROM employees;
```

```
SELECT (hire_date - SYSDATE) + TO_DATE('25-JUN-02')  
FROM employees;
```

Incorrect. Refer to Section 1

12. Which function would you use to return the current database server date and time? Mark for Review

(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

13. Which SELECT statement will return a numeric value? Mark for Review

(1) Points

```
SELECT SYSDATE + 600 / 24  
FROM employee;
```

```
SELECT ROUND(hire_date, DAY)  
FROM employee;
```

```
SELECT (SYSDATE - hire_date) / 7  
FROM employee;
```

(*)

```
SELECT SYSDATE - 7  
FROM employee;
```

Correct

14. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

15. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
```

WHERE total >= 2500;

```
SELECT companyname, TO_CHAR(sysdate, 'fmDay, dd Month, yyyy'), total  
FROM customers NATURAL JOIN orders
```

WHERE total >= 2500;

(*)

Correct

17. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

18. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

19. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)

NEXT_DAY(hire_date) + 5

SYSDATE - 6

SYSDATE + 30 / 24

Correct

20. Which three statements concerning explicit data type conversions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

(Answer all questions in this section)

21. Which statement concerning single row functions is true? Mark for Review

(1) Points

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

Correct

Section 2 Lesson 2

(Answer all questions in this section)

22. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

Mark for Review

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

Correct

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

24. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Correct

Section 3 Lesson 2

(Answer all questions in this section)

25. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
FROM employees e, departments d
WHERE e.department_id = d.department_id AND employees.department_id > 5000
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

```
FROM employees e, departments d
```

```
WHERE e.department_id = d.department_id
```

```
AND employees.department_id > 5000 (*)
```

```
ORDER BY 4;
```


Correct

26. You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated \$100,000, or more, in revenue.

Which query should you issue? Mark for Review

(1) Points

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees e, sales s  
WHERE e.employee_id = s.employee_id AND revenue > 100000;
```

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees e, sales s  
WHERE e.employee_id = s.employee_id AND revenue >= 100000;  
(*)
```

```
SELECT e.first_name, e.last_name, s.sales  
FROM employees, sales  
WHERE e.employee_id = s.employee_id AND revenue >= 100000;
```

```
SELECT first_name, last_name, sales
```

Q FROM employees e, sales s

WHERE e.employee_id = s.employee_id AND revenue > 100000;

Correct

27. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

28. What is produced when a join condition is not specified in a multiple-table query using Oracle proprietary Join syntax? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Correct

29. The CUSTOMERS and SALES tables contain these columns:

CUSTOMERS

CUST_ID NUMBER(10) PRIMARY KEY

COMPANY VARCHAR2(30)

LOCATION VARCHAR2(20)

SALES

SALES_ID NUMBER(5) PRIMARY KEY

CUST_ID NUMBER(10) FOREIGN KEY

TOTAL_SALES NUMBER(30)

Which SELECT statement will return the customer ID, the company and the total sales?

Mark for Review

(1) Points

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id (+);
```

```
SELECT cust_id, company, total_sales  
FROM customers, sales  
WHERE cust_id = cust_id;
```

```
SELECT c.cust_id, c.company, s.total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;  
(*)
```

```
SELECT cust_id, company, total_sales  
FROM customers c, sales s  
WHERE c.cust_id = s.cust_id;
```

Correct

30. You have the following EMPLOYEES table:

```
EMPLOYEE_ID NUMBER(5) NOT NULL PRIMARY KEY  
FIRST_NAME VARCHAR2(25)  
LAST_NAME VARCHAR2(25)  
ADDRESS VARCHAR2(35)  
CITY VARCHAR2(25)  
STATE VARCHAR2(2)  
ZIP NUMBER(9)  
TELEPHONE NUMBER(10)  
DEPARTMENT_ID NUMBER(5) NOT NULL FOREIGN KEY
```

The BONUS table includes the following columns:

```
BONUS_ID NUMBER(5) NOT NULL PRIMARY KEY  
ANNUAL_SALARY NUMBER(10)  
BONUS_PCT NUMBER(3, 2)  
EMPLOYEE_ID VARCHAR2(5) NOT NULL FOREIGN KEY
```

You want to determine the amount of each employee's bonus, as a calculation of salary times bonus. Which of the following queries should you issue?

Mark for Review

(1) Points

```
SELECT e.first_name, e.last_name, b.annual_salary * b. bonus_pct
FROM employees e, bonus b
WHERE e.employee_id=b.employee_id;
(*)
```

```
SELECT e.first_name, e.last_name, b.annual_salary, b. bonus_pct
FROM employees e, bonus b
WHERE e.employee_id=b.employee_id;
```

```
SELECT e.first_name, e.last_name, b.annual_salary, b. bonus_pct
FROM employees, bonus
WHERE e.employee_id=b.employee_id;
```

```
SELECT first_name, last_name, annual_salary * bonus_pct
FROM employees, bonus NATURAL JOIN;
```

Section 3 Lesson 4

(Answer all questions in this section)

31. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name
FROM player p
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Correct

32. Which of the following best describes the function of an outer join? Mark for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

Correct

33. Using Oracle Proprietary join syntax, which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Correct

35. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

Correct

36. You need to join all the rows in the EMPLOYEES table to all the rows in the EMP_REFERENCES table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

Section 4 Lesson 3

(Answer all questions in this section)

37. For which condition would you use an equijoin query with the USING keyword? Mark for Review

(1) Points

You need to perform a join of the CUSTOMER and ORDER tables but limit the number of columns in the join condition. (*)

The ORDER table contains a column that has a referential constraint to a column in the PRODUCT table.

The CUSTOMER and ORDER tables have no columns with identical names.

The CUSTOMER and ORDER tables have a corresponding column, CUST_ID. The CUST_ID column in the ORDER table contains null values that need to be displayed.

Correct

38. You created the CUSTOMERS and ORDERS tables by issuing these CREATE TABLE statements in sequence:

```
CREATE TABLE customers  
  
(custid varchar2(5),  
  
companyname varchar2(30),  
  
contactname varchar2(30),  
  
address varchar2(30),  
  
city varchar2(20),  
  
state varchar2(30),  
  
phone varchar2(20),  
  
constraint pk_customers_01 primary key (custid));
```

```
CREATE TABLE orders  
  
(orderid varchar2(5) constraint pk_orders_01 primary key,  
  
orderdate date,  
  
total number(15),  
  
custid varchar2(5) references customers (custid));
```

You have been instructed to compile a report to present the information about orders placed by customers who reside in Nashville . Which query should you issue to achieve the desired results?

Mark for Review

(1) Points

```
SELECT custid, companyname  
  
FROM customers  
  
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total
FROM orders o
NATURAL JOIN customers c ON o.custid = c.custid
WHERE city = 'Nashville';
```

```
SELECT orderid, orderdate, total
FROM orders o
JOIN customers c ON o.custid = c.custid
WHERE city = 'Nashville';
(*)
```

```
SELECT orderid, orderdate, total
FROM orders
WHERE city = 'Nashville';
```

Correct

39. Below find the structures of the PRODUCTS and VENDORS tables:

PRODUCTS

PRODUCT_ID NUMBER

PRODUCT_NAME VARCHAR2 (25)

VENDOR_ID NUMBER

CATEGORY_ID NUMBER

VENDORS

VENDOR_ID NUMBER

VENDOR_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

You want to create a query that will return an alphabetical list of products, including the product name and associated vendor name, for all products that have a vendor assigned.

Which two queries could you use?

Mark for Review

(1) Points

(Choose all correct answers)

SELECT p.product_name, v.vendor_name

FROM products p

LEFT OUTER JOIN vendors v ON p.vendor_id = v.vendor_id

```
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name  
FROM products p  
JOIN vendors v ON (vendor_id)  
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name  
FROM products p NATURAL JOIN vendors v  
ORDER BY p.product_name;  
(*)
```

```
SELECT p.product_name, v.vendor_name  
FROM products p  
JOIN vendors v USING (p.vendor_id)  
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name  
FROM products p  
JOIN vendors v USING (vendor_id)  
ORDER BY p.product_name;
```

(*)

Incorrect. Refer to Section 4

40. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Section 4 Lesson 4

(Answer all questions in this section)

41. Which query represents the correct syntax for a left outer join? Mark for Review

(1) Points

SELECT companyname, orderdate, total

FROM customers c

LEFT JOIN orders o

ON c.cust_id = o.cust_id;

SELECT companyname, orderdate, total

FROM customers c

OUTER JOIN orders o

ON c.cust_id = o.cust_id;

SELECT companyname, orderdate, total

FROM customers c

LEFT OUTER JOIN orders o

ON c.cust_id = o.cust_id;

(*)

SELECT companyname, orderdate, total

FROM customers c

LEFT OUTER orders o

ON c.cust_id = o.cust_id;

Correct

42. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Incorrect. Refer to Section 4

43. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. If a select list contains both columns as well as groups function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Correct

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id
```

```
FROM employees
```

```
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Correct

46. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

The first column listed in the GROUP BY clause is the most major grouping. (*)

The last column listed in the GROUP BY clause is the most major grouping.

The GROUP BY clause can contain an aggregate function.

A GROUP BY clause cannot be used without an ORDER BY clause.

Correct

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Correct

(Answer all questions in this section)

48. Which group function would you use to display the average price of all products in the PRODUCTS table? Mark for Review

(1) Points

SUM

AVG (*)

COUNT

MAX

Correct

49. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

50. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Section 5 Lesson 2

(Answer all questions in this section)

51. Which group functions below act on character, number and date data types?

(Choose three) Mark for Review

(1) Points

(Choose all correct answers)

SUM

MAX (*)

MIN (*)

AVG

COUNT (*)

Correct

52. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

Correct

53. Which group function would you use to display the lowest value in the SALES_AMOUNT column?
Mark for Review

(1) Points

AVG

COUNT

MAX

MIN (*)

Correct

54. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586	8908090	10-JUN-03	BASIC	859.00
----------	---------	-----------	-------	--------

89453485 8549038 15-FEB-03 INTEREST 596.00

85490345 5489304 20-MAR-03 BASIC 568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
(*)
```

```
SELECT AVG(payment_amount)
FROM payment;
```

```
SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
```

```
SELECT AVG(payment_amount)
FROM payment
```

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

Correct

55. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

You issue this SELECT statement:

```
SELECT COUNT(category)
```

FROM styles;

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Correct

57. Which statement about the COUNT function is true? Mark for Review

(1) Points

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

Correct

58. Group functions can avoid computations involving duplicate values by including which keyword?
Mark for Review

(1) Points

NULL

DISTINCT (*)

SELECT

UNLIKE

Correct

59. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Correct

Section 6 Lesson 1

(Answer all questions in this section)

60. Evaluate this SELECT statement:

SELECT SUM(salary), department_id

FROM employees

GROUP BY department_id;

How are the results of this statement sorted?

Mark for Review

(1) Points

Ascending order by department_id (*)

Descending order by department_id

Ascending order by cumulative salary

Descending order by cumulative salary

Section 6 Lesson 1

(Answer all questions in this section)

61. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

Mark for Review

(1) Points

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_price;
```

```
SELECT prod_cat, MIN (prod_price)
FROM products
GROUP BY prod_cat;
(*)
```

```
SELECT MIN (prod_price), prod_cat
FROM products
GROUP BY MIN (prod_price), prod_cat;
```

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

Correct

62. You want to write a report that returns the average salary of all employees in the company, sorted by departments. The EMPLOYEES table contains the following columns:

EMPLOYEES:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which SELECT statement will return the information that you require?

Mark for Review

(1) Points

SELECT salary (AVG)

FROM employees

GROUP BY department;

SELECT AVG (salary)

FROM employees

GROUP BY department;

(*)

```
SELECT AVG (salary)
FROM employees
BY department;
```

```
SELECT AVG salary
FROM employees
BY department;
```

Incorrect. Refer to Section 6

63. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary) (*)

GROUP BY MAX(salary)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

64. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id
```

```
FROM employees
```

```
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Correct

65. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id
```

```
FROM employees
```

```
GROUP BY department_id;
```

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Correct

66. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

SELECT customer_id, COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

(*)

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
```

Correct

67. Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
```


HAVING AVG(salary) > 35000

ORDER BY department_id;

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

SELECT department_id, AVG(salary)

WHERE job_id <> 69879 (*)

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000 (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points

```
SELECT product_name  
FROM products  
WHERE cost > (SELECT AVG(cost) FROM product);  
(*)
```

```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```

Correct

69. Which operator can be used with subqueries that return only one row? Mark for Review

(1) Points

LIKE (*)

ANY

ALL

IN

Correct

70. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Section 6 Lesson 2

(Answer all questions in this section)

71. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

WHERE max_capacity=(SELECT AVG(max_capacity) FROM class_assignments);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM teachers

WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);

Correct

72. Which operator can be used with a multiple-row subquery? Mark for Review

(1) Points

IN (*)

<>

=

LIKE

Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Correct

74. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Correct

75. Which comparison operator is best used with a single-row subquery? Mark for Review

(1) Points

ANY

ALL

<> (*)

IN

Correct

Section 6 Lesson 4

(Answer all questions in this section)

76. Which of the following best describes the meaning of the ANY operator? Mark for Review

(1) Points

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Correct

77. What would happen if you attempted to use a single-row operator with a multiple-row subquery?
Mark for Review

(1) Points

An error would be returned. (*)

No rows will be selected.

All the rows will be selected.

The data returned may or may not be correct.

Correct

78. You need to display all the products that cost more than the maximum cost of every product produced in Japan. Which multiple-row comparison operator could you use? Mark for Review

(1) Points

>ANY (*)

NOT=ALL

IN

>IN

Correct

79. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

MANAGER_ID NUMBER(9)

SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)

OLD_DEPT_ID NUMBER(9)

NEW_DEPT_ID NUMBER(9)

CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
      (SELECT employee_id, new_dept_id
       FROM depart_hist
       WHERE old_dept_id = 15) AND new_dept_id = 10;
```

(*)

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id) IN
      (SELECT employee_id
       FROM employee_hist
       WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) =
(SELECT employee_id, new_dept_id
FROM depart_hist
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
(SELECT employee_id, dept_id
FROM employee
WHERE old_dept_id = 15);
```

Correct

80. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
------------	-------------	--------------	--------------	----------------

86590586 8908090 10-JUN-03 BASIC 859.00
89453485 8549038 15-FEB-03 INTEREST 596.00
85490345 5489304 20-MAR-03 BASIC 568.00

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
    (SELECT payment_id
     FROM payment
     WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Section 7 Lesson 2

(Answer all questions in this section)

81. A multiple-row operator expects how many values? Mark for Review

(1) Points

One or more (*)

Only one

Two or more

None

Correct

82. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

SELECT description

FROM d_types

WHERE code IN (SELECT type_code FROM d_songs);

```
SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Correct

83. Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name
FROM student
WHERE major_id NOT IN
  (SELECT major_id
   FROM majors
   WHERE department_head_id = 30 AND title = 'ADJUNCT');
```


What would happen if the inner query returned a NULL value row?

Mark for Review

(1) Points

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Correct

84. Examine the structures of the PARTS and MANUFACTURERS tables:

PARTS:

PARTS_ID VARCHAR2(25)

PK PARTS_NAME VARCHAR2(50)

MANUFACTURERS_ID NUMBER

COST NUMBER(5,2)

PRICE NUMBER(5,2)

MANUFACTURERS:

ID NUMBER

PK NAME VARCHAR2(30)

LOCATION VARCHAR2(20)

Which SQL statement correctly uses a subquery?

Mark for Review

(1) Points

```
UPDATE parts SET price = price * 1.15
```

```
WHERE manufacturers_id =
```

```
(SELECT id
```

```
FROM manufacturers
```

```
WHERE UPPER(location) IN('ATLANTA ', 'BOSTON ', 'DALLAS '));
```

```
SELECT parts_name, price, cost
```

```
FROM parts
```

```
WHERE manufacturers_id !=
```

```
(SELECT id
```

```
FROM manufacturers
```

```
WHERE LOWER(name) = 'cost plus');
```

```
SELECT parts_name, price, cost
```

```
FROM parts

WHERE manufacturers_id IN

(SELECT id

FROM manufacturers m

JOIN part p ON (m.id = p.manufacturers_id));

(*)
```

```
SELECT parts_name

FROM

(SELECT AVG(cost)

FROM manufacturers)

WHERE cost > AVG(cost);
```

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name

FROM employees

WHERE salary =

(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Correct

86. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

INSERT INTO customers (cust_id, company, poc, location)

```
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
```

```
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
```

```
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
```

```
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Correct

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Correct

89. Which statement about the VALUES clause of an INSERT statement is true? Mark for Review

(1) Points

If no column list is specified, then the values must be in the order the columns are specified in the table. (*)

The VALUES clause in an INSERT statement is optional.

Character, date, and numeric data must be enclosed within single quotes in the VALUES clause.

To specify a null value in the VALUES clause, use an empty string (' ').

Correct

90. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id VALUES (2958, 'Cable', 8690, SYSDATE);

91. You need to remove a row from the EMPLOYEES table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

92. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

```
DELETE FROM products
```

```
WHERE supplier_id IN
```

```
(SELECT supplier_id
```

```
FROM suppliers
```

```
WHERE UPPER(city) = 'ATLANTA');
```

(*)

```
DELETE FROM products
```

```
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products
```

```
WHERE supplier_id =  
  
(SELECT supplier_id  
  
FROM suppliers  
  
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products  
  
WHERE supplier_id <  
  
(SELECT supplier_id  
  
FROM suppliers  
  
WHERE UPPER(city) = 'ALANTA');
```

Correct

93. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

```
EMPLOYEE_ID NUMBER(10) PRIMARY KEY  
  
LAST_NAME VARCHAR2(20)  
  
FIRST_NAME VARCHAR2(20)  
  
DEPARTMENT_ID NUMBER(10)  
  
HIRE_DATE DATE  
  
SALARY NUMBER(10)
```

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

```
UPDATE employees  
SET last_name = 'cooper'  
WHERE last_name = 'roper';
```

(*)

```
UPDATE employees last_name = 'cooper'  
WHERE last_name = 'roper';
```

```
UPDATE employees  
SET last_name = 'roper'  
WHERE last_name = 'cooper';
```

```
UPDATE employees  
SET cooper = 'last_name'  
WHERE last_name = 'roper';
```

Correct

94. You need to update the expiration date of products manufactured before June 30th. In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

95. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

96. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Correct

97. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

MERGE (*)

SELECT

UPDATE (*)

Correct

98. What keyword in an UPDATE statement specifies the columns you want to change? Mark for Review

(1) Points

SELECT

WHERE

SET (*)

HAVING

Incorrect. Refer to Section 7

99. You need to update the area code of employees that live in Atlanta . Evaluate this partial UPDATE statement:

UPDATE employee

SET area_code = 770

Which of the following should you include in your UPDATE statement to achieve the desired results?

Mark for Review

(1) Points

UPDATE city = Atlanta;

SET city = 'Atlanta';

WHERE city = 'Atlanta'; (*)

LIKE 'At%';

Correct

100. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEES table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. Which functions can be used to manipulate character, number, and date column values? Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

Correct

2. You need to display each employee's name in all uppercase letters. Which function should you use?
Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

Correct

3. Which three statements about functions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

The SYSDATE function returns the Oracle Server date and time. (*)

The ROUND number function rounds a value to a specified decimal place or the nearest whole number. (*)

The CONCAT function can only be used on character strings, not on numbers.

The SUBSTR character function returns a portion of a string beginning at a defined character position to a specified length. (*)

Incorrect. Refer to Section 1

4. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

5. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Incorrect. Refer to Section 1

6. You query the database with this SQL statement:

```
SELECT CONCAT(last_name, (SUBSTR(LOWER(first_name), 4))) "Default Password"  
FROM employees;
```

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

7. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

9. Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

Correct

10. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employees;  
(*)
```

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employees;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employees;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employees;
```

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review

(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Correct

12. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS
FROM employees
WHERE department_id = 90;
(*)
```

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS
FROM employees
WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS
FROM employees
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK
```

FROM employees

WHERE department_id = 90;

Correct

13. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

SELECT orderid, total

FROM orders

WHERE order_date LIKE '01-jan-02' AND '31-jan-02'

ORDER BY total DESC;

SELECT orderid, total

FROM orders

WHERE order_date IN (01-jan-02 , 31-jan-02)

ORDER BY total;

SELECT orderid, total

FROM orders

WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'

ORDER BY total DESC;

(*)

SELECT orderid, total

FROM orders

WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'

ORDER BY total DESC;

Correct

14. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

```
SELECT hire_date + eval_months
```

```
FROM employees;
```

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Correct

15. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)

NEXT_DAY(hire_date) + 5

SYSDATE - 6

`SYSDATE + 30 / 24`

Correct

17. Which best describes the TO_CHAR function? Mark for Review

(1) Points

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

Correct

18. The EMPLOYEES table contains these columns:

`EMPLOYEE_ID NUMBER(9)`

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$999,999')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')
```

```
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')
```

```
FROM employees;
```

(*)

Correct

19. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

20. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

`SELECT TO_CHAR(price, '$99,900.99') FROM product; (*)`

`SELECT TO_CHAR(price, "$99,900.99") FROM product;`

`SELECT TO_CHAR(price, '$99,990.99') FROM product;`

`SELECT TO_CHAR(price, $99,900.99) FROM product;`

Correct

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Incorrect. Refer to Section 2

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Incorrect. Refer to Section 2

24. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

Evaluate this SELECT statement:

```
SELECT style_id, style_name, category, cost
FROM styles
WHERE style_name = 'SANDAL' AND NVL(cost, 0) < 15.00
ORDER BY category, cost;
```

Which result will the query provide?

Mark for Review

(1) Points

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	
869506	SANDAL	89690	15.00

STYLE_ID	STYLE_NAME	CATEGORY	COST
968950	SANDAL	85909	10.00
895840	SANDAL	85940	12.00
758960	SANDAL	86979	

(*)

Incorrect. Refer to Section 2

Section 3 Lesson 2

(Answer all questions in this section)

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect. Refer to Section 3

26. What is the minimum number of join conditions required to join 5 tables together? Mark for Review

(1) Points

3

4 (*)

5

One more than the number of tables

Incorrect. Refer to Section 3

27. You need to create a report that lists all employees in department 10 (Sales) whose salary is not equal to \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND department_id = 10;
```

(*)

Correct

28. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

Correct

29. Which statement about the join syntax of an Oracle Proprietary join syntax SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

30. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Using Oracle Proprietary join syntax, which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

32. Which of the following best describes the function of an outer join? Mark for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

Correct

33. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name
FROM player p
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Incorrect. Refer to Section 3

Section 4 Lesson 2

(Answer all questions in this section)

34. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

Full outer join

Correct

35. The following SQL statement will produce what output?

```
SELECT last_name, department_name  
FROM employees  
CROSS JOIN departments;
```

Mark for Review

(1) Points

The missing rows from the join condition.

The last_name and department name from the employee table.

A Cartesian product between the two tables. (*)

A cross referenced result omitting similar fields from the two tables.

Correct

36. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Correct

Section 4 Lesson 3

(Answer all questions in this section)

37. Which keyword in a SELECT statement creates an equijoin by specifying a column name common to both tables? Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Correct

38. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Correct

39. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Correct

40. Evaluate this SELECT statement:

```
SELECT a.last_name || ', ' || a.first_name as "Patient", b.last_name || ', ' || b.first_name as "Physician",  
c.admission  
  
FROM patient a  
  
JOIN physician b  
  
ON (b.physician_id = c.physician_id)
```

JOIN admission c

ON (a.patient_id = c.patient_id);

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id) (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Correct

42. Which query will retrieve all the rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table? Mark for Review

(1) Points

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
RIGHT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
NATURAL JOIN departments d;
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
(*)
```

```
SELECT e.last_name, e.department_id, d.department_name
FROM employees e
JOIN departments d USING (e.department_id = d.department_id);
```

Correct

43. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

The first column listed in the GROUP BY clause is the most major grouping. (*)

The last column listed in the GROUP BY clause is the most major grouping.

The GROUP BY clause can contain an aggregate function.

A GROUP BY clause cannot be used without an ORDER BY clause.

Correct

45. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG(salary) "Average"
```

```
FROM employees
```

```
GROUP BY Department;
```

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Correct

46. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)  
FROM employees  
GROUP BY job_id;
```

Mark for Review

(1) Points

Displays all the employees and groups them by job.

Displays each job id and the number of people assigned to that job id. (*)

Displays only the number of job_ids.

Displays all the jobs with as many people as there are jobs.

Correct

47. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Correct

Section 5 Lesson 2

(Answer all questions in this section)

48. Which group function would you use to display the average price of all products in the PRODUCTS table? Mark for Review

(1) Points

SUM

AVG (*)

COUNT

MAX

Correct

49. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Incorrect. Refer to Section 5

50. Which group function would you use to display the total of all salary values in the EMPLOYEE table? Mark for Review

(1) Points

SUM (*)

AVG

COUNT

MAX

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Correct

52. Which group function would you use to display the highest salary value in the EMPLOYEE table?
Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. The VENDORS table contains these columns:

VENDOR_ID NUMBER Primary Key

NAME VARCHAR2(30)

LOCATION_ID NUMBER

ORDER_DT DATE

ORDER_AMOUNT NUMBER(8,2)

Which two clauses represent valid uses of aggregate functions for this table?

Mark for Review

(1) Points

(Choose all correct answers)

FROM MAX(order_dt)

SELECT SUM(order_dt)

SELECT SUM(order_amount)(*)

WHERE MAX(order_dt) = order_dt

SELECT MIN(AVG(order_amount))(*)

Incorrect. Refer to Section 5

54. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Correct

55. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003';
(*)
```

```
SELECT AVG(payment_amount)
FROM payment;
```

```
SELECT SUM(payment_amount)
```

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';

SELECT AVG(payment_amount)

FROM payment

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. Evaluate this SQL statement:

SELECT COUNT (amount)

FROM inventory;

What will occur when the statement is issued?

Mark for Review

(1) Points

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

Correct

57. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	
--------	--------	-------	--

You issue this SELECT statement:

```
SELECT COUNT(category)
```

```
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Correct

58. Which statement about the COUNT function is true? Mark for Review

(1) Points

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

Correct

59. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM products;
```

Which statement is true?

Mark for Review

(1) Points

The number of rows in the table is displayed. (*)

The number of unique PRODUCT_IDs in the table is displayed.

An error occurs due to an error in the SELECT clause.

An error occurs because no WHERE clause is included in the SELECT statement.

Incorrect. Refer to Section 5

Section 6 Lesson 1

(Answer all questions in this section)

60. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER(9) PK

CATEGORY_ID VARCHAR2(10)

LOCATION_ID NUMBER(9)

DESCRIPTION VARCHAR2(30)

COST NUMBER(7,2)

PRICE NUMBER(7,2)

QUANTITY NUMBER

You display the total of the extended costs for each product category by location. You need to include only the products that have a price less than \$25.00. The extended cost of each item equals the quantity value multiplied by the cost value.

Which SQL statement will display the desired result?

Mark for Review

(1) Points

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price > 25.00
GROUP BY category_id, location_id;
```

```
SELECT SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY location_id;
```

```
SELECT category_id, SUM(cost * quantity) TOTAL, location_id
FROM products
WHERE price < 25.00
GROUP BY category_id, location_id;
(*)
```

```
SELECT SUM(cost * quantity) TOTAL
FROM products
WHERE price < 25.00;
```


Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you should use a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

62. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
```

```
FROM manufacturer
```

```
GROUP BY location_id;
```

(*)

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Correct

63. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id
FROM employees
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Correct

64. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

You want to create a report that includes each employee's last name, employee identification number, date of hire and salary. The report should include only those employees who have been with the company for more than one year and whose salary exceeds \$40,000.

Which of the following SELECT statements will accomplish this task?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, salary
FROM employees
WHERE salary > 40000
AND hire_date = (SELECT hire_date FROM employees
WHERE (sysdate-hire_date) / 365 > 1);
```

```
SELECT employee_id, last_name, hire_date, salary
FROM employees
WHERE salary > 40000
AND hire_date = (SELECT hire_date FROM employees
WHERE (sysdate-hire_date) / 365 > 1);
```

```
SELECT employee_id, last_name, hire_date, salary
FROM employees
WHERE salary > 40000
AND (sysdate-hire_date) / 365 > 1;
```

(*)

```
SELECT employee_id, last_name, salary
FROM employees
WHERE salary > 40000
AND hire_date IN (sysdate-hire_date) / 365 > 1);
```

Incorrect. Refer to Section 6

65. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

```
SELECT
FROM
WHERE
ORDER BY
HAVING
```

```
SELECT
FROM
HAVING
GROUP BY
WHERE
```

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

Correct

66. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id
FROM employees
GROUP BY department_id;
```

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Incorrect. Refer to Section 6

67. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, hire_date, department_id, SUM(salary)
```

```
FROM employees
```

```
WHERE salary > 25000
```

```
GROUP BY department_id, id_number, name
```

```
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect. Refer to Section 6

Section 6 Lesson 2

(Answer all questions in this section)

68. The EMPLOYEES and ORDERS tables contain these columns:

EMPLOYEES

EMPLOYEE_ID NUMBER(10) NOT NULL PRIMARY KEY

FIRST_NAME VARCHAR2(30)

LAST_NAME VARCHAR2(30)

ADDRESS VARCHAR2(25)

CITY VARCHAR2(20)

STATE VARCHAR2(2)

ZIP NUMBER(9)

TELEPHONE NUMBER(10)

ORDERS

ORDER_ID NUMBER(10) NOT NULL PRIMARY KEY

EMPLOYEE_ID NUMBER(10) NOT NULL FOREIGN KEY

ORDER_DATE DATE

TOTAL NUMBER(10)

Which SELECT statement will return all orders generated by a sales representative named Franklin during the year 2001?

Mark for Review

(1) Points

```
SELECT order_id, total
FROM ORDERS (SELECT employee_id FROM employees WHERE last_name = 'Franklin')
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT (SELECT employee_id FROM employees WHERE last_name = 'Franklin') AND order_id, total
FROM ORDERS
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

```
SELECT order_id, employee_id, total
FROM ORDERS
WHERE order_date BETWEEN '01-jan-01' AND '31-dec-01' AND emp_id = 'Franklin';
```

```
SELECT order_id, total
FROM ORDERS
WHERE employee_id = (SELECT employee_id FROM employees WHERE last_name = 'Franklin')
AND order_date BETWEEN '01-jan-01' AND '31-dec-01';
```

(*)

Incorrect. Refer to Section 6

69. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

```
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);
```

```
(*)
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);
```

```
(*)
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *
```

```
FROM teachers
```

```
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *
```

```
FROM class_assignments
```

```
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

70. Which operator can be used with subqueries that return only one row? Mark for Review

(1) Points

LIKE (*)

ANY

ALL

IN

Incorrect. Refer to Section 6

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

72. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points

```
SELECT product_name  
FROM products  
WHERE cost > (SELECT AVG(cost) FROM product);  
(*)
```

```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```


Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. Which statement about the <> operator is true? Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

Correct

74. Examine the following EMPLOYEES table:

EMPLOYEES

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

SUPERVISOR_ID NUMBER(9)

You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task?

Mark for Review

(1) Points

SELECT *

FROM employees

WHERE supervisor_id =

(SELECT supervisor_id

FROM employees

WHERE last_name = 'Carter');

SELECT *

FROM supervisors

WHERE supervisor_id =

(SELECT supervisor_id

```
FROM employees  
WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT employee_id  
     FROM supervisors  
     WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT employee_id  
     FROM employees  
     WHERE last_name = 'Carter');
```

(*)

Incorrect. Refer to Section 6

75. Which best describes a single-row subquery? Mark for Review

(1) Points

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

Incorrect. Refer to Section 6

Section 6 Lesson 4

(Answer all questions in this section)

76. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
```

```
FROM employees
```

```
WHERE department_id IN
```

```
(SELECT department_id
```

FROM departments

WHERE department_name = 'Executive');

Mark for Review

(1) Points

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

Correct

77. A multiple-row operator expects how many values? Mark for Review

(1) Points

One or more (*)

Only one

Two or more

None

Correct

78. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
  (SELECT customer_id  
   FROM customer  
   WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Correct

79. Which operator or keyword cannot be used with a multiple-row subquery? Mark for Review

(1) Points

ALL

ANY

= (*)

>

Correct

80. Examine the structures of the PARTS and MANUFACTURERS tables:

PARTS:

PARTS_ID VARCHAR2(25)

PK PARTS_NAME VARCHAR2(50)

MANUFACTURERS_IDNUMBER

COST NUMBER(5,2)

PRICE NUMBER(5,2)

MANUFACTURERS:

ID NUMBER

PK NAME VARCHAR2(30)

LOCATION VARCHAR2(20)

Which SQL statement correctly uses a subquery?

Mark for Review

(1) Points

UPDATE parts SET price = price * 1.15

WHERE manufacturers_id =

(SELECT id

FROM manufacturers

WHERE UPPER(location) IN('ATLANTA ', 'BOSTON ', 'DALLAS '));

SELECT parts_name, price, cost

FROM parts

WHERE manufacturers_id !=

(SELECT id

FROM manufacturers


```
WHERE LOWER(name) = 'cost plus');
```

```
SELECT parts_name, price, cost  
FROM parts  
WHERE manufacturers_id IN  
(SELECT id  
FROM manufacturers m  
JOIN part p ON (m.id = p.manufacturers_id));  
(*)
```

```
SELECT parts_name  
FROM  
(SELECT AVG(cost)  
FROM manufacturers)  
WHERE cost > AVG(cost);
```

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
```

```
FROM payment
WHERE payment_id =
  (SELECT payment_id
   FROM payment
   WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

82. Which statement about the ANY operator when used with a multiple-row subquery is true? Mark for Review

(1) Points

The ANY operator compares every value returned by the subquery. (*)

The ANY operator can be used with the DISTINCT keyword.

The ANY operator is a synonym for the ALL operator.

The ANY operator can be used with the LIKE and IN operators.

Incorrect. Refer to Section 6

83. Evaluate this SELECT statement:

```
SELECT player_id, name
FROM players
WHERE team_id IN
(SELECT team_id
FROM teams
WHERE team_id > 300 AND salary_cap > 400000);
```

What would happen if the inner query returned a NULL value?

Mark for Review

(1) Points

No rows would be returned by the outer query. (*)

A syntax error in the outer query would be returned.

A syntax error in the inner query would be returned.

All the rows in the PLAYER table would be returned by the outer query.

Incorrect. Refer to Section 6

84. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name
```

```
FROM customer
```

```
WHERE area_code IN
```

```
(SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Correct

85. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

86. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);

Correct

88. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(25)

PROD_PRICE NUMBER(3)

You want to add the following row data to the PRODUCTS table:

(1) a NULL value in the PROD_ID column

(2) "6-foot nylon leash" in the PROD_NAME column

(3) "10" in the PROD_PRICE column

You issue this statement:

```
INSERT INTO products
```

```
VALUES (null,'6-foot nylon leash', 10);
```

What row data did you add to the table?

Mark for Review

(1) Points

The row was created with the correct data in all three columns. (*)

The row was created with the correct data in two of three columns.

The row was created with the correct data in one of the three columns.

The row was created completely wrong. No data ended up in the correct columns.

Correct

89. Using the INSERT statement, and assuming that a column can accept null values, how can you implicitly insert a null value in a column? Mark for Review

(1) Points

Use the NULL keyword.

Use the ON clause

Omit the column in the column list. (*)

It is not possible to implicitly insert a null value in a column.

Correct

90. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
(*)
```

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. You need to update the area code of employees that live in Atlanta . Evaluate this partial UPDATE statement:

```
UPDATE employee
```

```
SET area_code = 770
```

Which of the following should you include in your UPDATE statement to achieve the desired results?

Mark for Review

(1) Points

UPDATE city = Atlanta;

SET city = 'Atlanta';

WHERE city = 'Atlanta'; (*)

LIKE 'At%';

Incorrect. Refer to Section 7

92. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

93. Which of the following represents the correct syntax for an INSERT statement? Mark for Review

(1) Points

INSERT VALUES INTO customers (3178 J. Smith 123 Main Street Nashville TN 37777;

INSERT INTO customers VALUES '3178' 'J.' 'Smith' '123 Main Street' 'Nashville' 'TN' '37777';

INSERT INTO customers VALUES (3178, 'J.', 'Smith', '123 Main Street', 'Nashville', 'TN', '37777'); (*)

INSERT customers VALUES 3178, J., Smith, 123 Main Street, Nashville, TN, 37777;

Incorrect. Refer to Section 7

94. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee id 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

```
UPDATE employees
SET salary = SELECT salary
FROM employees
WHERE employee_id = 89898;
```

```
UPDATE employees
SET salary = (SELECT salary FROM employees WHERE employee_id = 89898);
```

```
UPDATE employees
SET salary = (SELECT salary FROM employees WHERE employee_id = 89898)
WHERE department_id = 10;
```

(*)

UPDATE employees

SET salary = (SELECT salary FROM employees WHERE employee_id = 89898 AND department_id = 10);

Incorrect. Refer to Section 7

95. What keyword in an UPDATE statement specifies the columns you want to change? Mark for Review

(1) Points

SELECT

WHERE

SET (*)

HAVING

Incorrect. Refer to Section 7

96. You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEES table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns? Mark for Review

(1) Points

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

Correct

97. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

```
UPDATE employees
SET last_name = 'cooper'
WHERE last_name = 'roper';
(*)
```

```
UPDATE employees last_name = 'cooper'
WHERE last_name = 'roper';
```

```
UPDATE employees
SET last_name = 'roper'
WHERE last_name = 'cooper';
```

```
UPDATE employees
SET cooper = 'last_name'
WHERE last_name = 'roper';
```

Incorrect. Refer to Section 7

98. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Correct

99. You need to delete a record in the EMPLOYEES table for Tim Jones, whose unique employee identification number is 348. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(5) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

ADDRESS VARCHAR2(30)

PHONE NUMBER(10)

Which DELETE statement will delete the appropriate record without deleting any additional records?

Mark for Review

(1) Points

DELETE FROM employees WHERE employee_id = 348; (*)

DELETE FROM employees WHERE last_name = jones;

DELETE * FROM employees WHERE employee_id = 348;

DELETE 'jones' FROM employees;

Incorrect. Refer to Section 7

100. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Incorrect. Refer to Section 7

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Correct

2. You issue this SQL statement:

```
SELECT INSTR ('organizational sales', 'al')  
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

1

2

13 (*)

17

Correct

3. Which functions can be used to manipulate character, number, and date column values? Mark for Review

(1) Points

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

Incorrect. Refer to Section 1

4. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	12.00

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
```

(*)

Correct

5. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Correct

6. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

7. You need to display each employee's name in all uppercase letters. Which function should you use?

Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Correct

9. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

10. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employees;
```

(*)

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employees;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employees;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employees;
```

Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

```
SELECT hire_date + eval_months
```

```
FROM employees;
```

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Correct

12. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

13. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

```
SELECT orderid, total  
FROM orders  
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )  
ORDER BY total;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

(*)

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'  
ORDER BY total DESC;
```

Correct

14. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS  
FROM employees  
WHERE department_id = 90;  
(*)
```

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS  
FROM employees  
WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS  
FROM employees  
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

Correct

15. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Correct

Section 2 Lesson 1

(Answer all questions in this section)

16. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Correct

17. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

`TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)`

`NEXT_DAY(hire_date) + 5`

`SYSDATE - 6`

`SYSDATE + 30 / 24`

Correct

18. Which functions allow you to perform explicit data type conversions? Mark for Review

(1) Points

`ROUND, TRUNC, ADD_MONTHS`

`LENGTH, SUBSTR, LPAD, TRIM`

TO_CHAR, TO_DATE, TO_NUMBER (*)

NVL, NVL2, NULLIF

Correct

19. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Correct

20. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

(*)

Correct

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Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. Which SQL Statement should you use to display the prices in this format: "\$00.30"? Mark for Review

(1) Points

`SELECT TO_CHAR(price, '$99,900.99') FROM product; (*)`


```
SELECT TO_CHAR(price, '$99,900.99') FROM product;
```

```
SELECT TO_CHAR(price, '$99,990.99') FROM product;
```

```
SELECT TO_CHAR(price, $99,900.99) FROM product;
```

Incorrect. Refer to Section 2

Section 2 Lesson 2

(Answer all questions in this section)

22. When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null? Mark for Review

(1) Points

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"  
FROM student_accounts;
```

(*)

```
SELECT NVL(tuition_balance, 0), NVL(housing_balance), tuition_balance + housing_balance "Balance Due"
```

```
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
```

```
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER(housing_balance, 0), tuition_balance + housing_balance "Balance Due"
```

```
FROM student_accounts;
```

Correct

23. Which of the following General Functions will return the first non-null expression in the expression list? Mark for Review

(1) Points

NVL

NVL2

NULLIF

COALESCE (*)

Correct

24. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

Evaluate this SELECT statement:

```
SELECT style_id, style_name, category, cost
FROM styles
WHERE style_name = 'SANDAL' AND NVL(cost, 0) < 15.00
ORDER BY category, cost;
```

Which result will the query provide?

Mark for Review

(1) Points

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
758960	SANDAL	86979	

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85909	12.00
968950	SANDAL	85909	10.00
758960	SANDAL	86979	
869506	SANDAL	89690	15.00

STYLE_ID	STYLE_NAME	CATEGORY	COST
968950	SANDAL	85909	10.00
895840	SANDAL	85940	12.00
758960	SANDAL	86979	

(*)

Incorrect. Refer to Section 2

Section 3 Lesson 2

(Answer all questions in this section)

25. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

Correct

26. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Correct

27. What is produced when a join condition is not specified in a multiple-table query using Oracle proprietary Join syntax? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Correct

28. Which statement about the join syntax of an Oracle Proprietary join syntax SELECT statement is true? Mark for Review

(1) Points

The ON keyword must be included.

The JOIN keyword must be included.

The FROM clause represents the join criteria.

The WHERE clause represents the join criteria. (*)

Incorrect. Refer to Section 3

29. You need to create a report that lists all employees in department 10 (Sales) whose salary is not equal to \$25,000 per year. Which query should you issue to accomplish this task? Mark for Review

(1) Points


```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND department_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND department_id = 10;
(*)
```

Correct

30. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name  
FROM employees e, departments d  
WHERE e.department_id = d.department_id AND employees.department_id > 5000  
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

```
FROM employees e, departments d
```

```
WHERE e.department_id = d.department_id
```

```
AND employees.department_id > 5000 (*)
```

```
ORDER BY 4;
```

Incorrect. Refer to Section 3

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Evaluate this SELECT statement:

```
SELECT p.player_id, m.last_name, m.first_name, t.team_name  
FROM player p  
LEFT OUTER JOIN player m ON (p.manager_id = m.player_id)  
LEFT OUTER JOIN team t ON (p.team_id = t.team_id);
```

Which join is evaluated first?

Mark for Review

(1) Points

the self-join of the player table (*)

the join between the player table and the team table on TEAM_ID

the join between the player table and the team table on MANAGER_ID

the join between the player table and the team table on PLAYER_ID

Incorrect. Refer to Section 3

32. The EMPLOYEE_ID column in the EMPLOYEES table corresponds to the EMPLOYEE_ID column of the ORDERS table. The EMPLOYEE_ID column in the ORDERS table contains null values for rows that you need to display.

Which type of join should you use to display the data? Mark for Review

(1) Points

natural join

self-join

outer join (*)

equijoin

Incorrect. Refer to Section 3

33. Which of the following best describes the function of an outer join? Mark for Review

(1) Points

An outer join will return only those rows that do not meet the join criteria.

An outer join will return only data from the far left column in one table and the far right column in the other table.

An outer join will return data only if both tables contain an identical pair of columns.

An outer join will return all rows that meet the join criteria and will return NULL values from one table if no rows from the other table satisfy the join criteria. (*)

Incorrect. Refer to Section 3

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join all the rows in the EMPLOYEES table to all the rows in the EMP_REFERENCES table. Which type of join should you create? Mark for Review

(1) Points

An equijoin

A cross join (*)

An inner join

A full outer join

Incorrect. Refer to Section 4

35. The following SQL statement will produce what output?

```
SELECT last_name, department_name
```

```
FROM employees
```

```
CROSS JOIN departments;
```

Mark for Review

(1) Points

The missing rows from the join condition.

The last_name and department name from the employee table.

A Cartesian product between the two tables. (*)

A cross referenced result omitting similar fields from the two tables.

Correct

36. Which statement about a natural join is true? Mark for Review

(1) Points

Columns with the same names must have identical data types.

Columns with the same names must have the same precision and datatype. (*)

Columns with the same names must have compatible data types.

Columns with the same names cannot be included in the SELECT list of the query.

Incorrect. Refer to Section 4

Section 4 Lesson 3

(Answer all questions in this section)

37. Which of the following statements is the simplest description of a nonequijoin? Mark for Review

(1) Points

A join condition containing something other than an equality operator (*)

A join condition that is not equal to other joins.

A join condition that includes the (+) on the left hand side.

A join that joins a table to itself

Incorrect. Refer to Section 4

38. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id = s.customer_id(+);
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name
FROM customers c
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Correct

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Correct

40. Below find the structures of the PRODUCTS and VENDORS tables:

PRODUCTS

PRODUCT_ID NUMBER

PRODUCT_NAME VARCHAR2 (25)

VENDOR_ID NUMBER

CATEGORY_ID NUMBER

VENDORS

VENDOR_ID NUMBER

VENDOR_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

You want to create a query that will return an alphabetical list of products, including the product name and associated vendor name, for all products that have a vendor assigned.

Which two queries could you use?

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT p.product_name, v.vendor_name
FROM products p
LEFT OUTER JOIN vendors v ON p.vendor_id = v.vendor_id
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name
FROM products p
```

```
JOIN vendors v ON (vendor_id)
```

```
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name
```

```
FROM products p NATURAL JOIN vendors v
```

```
ORDER BY p.product_name;
```

```
(*)
```

```
SELECT p.product_name, v.vendor_name
```

```
FROM products p
```

```
JOIN vendors v USING (p.vendor_id)
```

```
ORDER BY p.product_name;
```

```
SELECT p.product_name, v.vendor_name
```

```
FROM products p
```

```
JOIN vendors v USING (vendor_id)
```

```
ORDER BY p.product_name;
```

```
(*)
```

Incorrect. Refer to Section 4

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Correct

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Correct

43. You need to join the EMPLOYEE_HISTS and EMPLOYEES tables. The EMPLOYEE_HISTS table will be the first table in the FROM clause. All the matched and unmatched rows in the EMPLOYEES table need to be displayed. Which type of join will you use? Mark for Review

(1) Points

a cross join

an inner join

a left outer join

a right outer join (*)

Correct

Section 5 Lesson 1

(Answer all questions in this section)

44. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)
```

```
FROM employees
```

```
GROUP BY job_id;
```

Mark for Review

(1) Points

Displays all the employees and groups them by job.

Displays each job id and the number of people assigned to that job id. (*)

Displays only the number of job_ids.

Displays all the jobs with as many people as there are jobs.

Correct

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Correct

46. Which statement about group functions is true? Mark for Review

(1) Points

Group functions ignore null values. (*)

Group functions can only be used in a SELECT list.

Group functions can be used in a WHERE clause.

A query that includes a group function in the SELECT list must include a GROUP BY clause.

Incorrect. Refer to Section 5

47. What is the best explanation as to why this SQL statement will NOT execute?

```
SELECT department_id "Department", AVG (salary) "Average"
```

FROM employees

GROUP BY Department;

Mark for Review

(1) Points

Salaries cannot be averaged as not all the numbers will divide evenly.

You cannot use a column alias in the GROUP BY clause. (*)

The GROUP BY clause must have something to GROUP.

The department id is not listed in the departments table.

Incorrect. Refer to Section 5

Section 5 Lesson 2

(Answer all questions in this section)

48. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Correct

49. Which group function would you use to display the highest salary value in the EMPLOYEE table?

Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

50. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

```
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Correct

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Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Group functions return a value for _____ and _____ null values in their computations. Mark for Review

(1) Points

a row set, ignore (*)

each row, ignore

a row set, include

each row, include

Correct

52. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Correct

53. Which aggregate function can be used on a column of the DATE data type? Mark for Review

(1) Points

AVG

MAX (*)

STDDEV

SUM

Correct

54. The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

Mark for Review

(1) Points

SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)

SELECT AVG (price) FROM trucks WHERE model IS '4x4';

SELECT AVG(price) FROM trucks WHERE model IS 4x4;

SELECT AVG(price), model FROM trucks WHERE model = '4x4';

Correct

55. You need to calculate the average salary of employees in each department. Which group function will you use? Mark for Review

(1) Points

AVG (*)

MEAN

MEDIAN

AVERAGE

Correct

Section 5 Lesson 3

(Answer all questions in this section)

56. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Correct

57. Evaluate this SELECT statement:

SELECT COUNT(*)

FROM employees

WHERE salary > 30000;

Which results will the query display?

Mark for Review

(1) Points

The number of employees that have a salary less than 30000.

The total of the SALARY column for all employees that have a salary greater than 30000.

The number of rows in the EMPLOYEES table that have a salary greater than 30000. (*)

The query generates an error and returns no results.

Correct

58. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	

You issue this SELECT statement:

```
SELECT COUNT(category)
FROM styles;
```

Which value is displayed?

Mark for Review

(1) Points

0

6

7 (*)

The statement will NOT execute successfully.

Incorrect. Refer to Section 5

59. Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05
867950	985490	945809	5.60	
954039	439203	438925	5.25	0.15
543949	349302	453235	4.50	

You query the LINE_ITEM table and a value of 3 is returned. Which SQL statement did you execute?

Mark for Review

(1) Points

SELECT COUNT(discount) FROM line_item; (*)

SELECT COUNT(*) FROM line_item;

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

Incorrect. Refer to Section 5

Section 6 Lesson 1

(Answer all questions in this section)

60. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
(*)
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
```

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Evaluate this statement:

```
SELECT department_id,AVG(salary)
```

```
FROM employees
```



```
WHERE job_id <> 69879  
  
GROUP BY job_id, department_id  
  
HAVING AVG(salary) > 35000  
  
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

```
GROUP BY job_id, department_id
```

```
HAVING AVG(salary) > 35000 (*)
```

Correct

62. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id
```

FROM employees

GROUP BY department_id;

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Correct

63. The MANUFACTURER table contains these columns:

MANUFACTURER_ID NUMBER

MANUFACTURER_NAME VARCHAR2(30)

TYPE VARCHAR2(25)

LOCATION_ID NUMBER

You need to display the number of unique types of manufacturers at each location. Which SELECT statement should you use?

Mark for Review

(1) Points

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY location_id;
(*)
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer;
```

```
SELECT location_id, COUNT(type)
FROM manufacturer
GROUP BY location_id;
```

```
SELECT location_id, COUNT(DISTINCT type)
FROM manufacturer
GROUP BY type;
```

Incorrect. Refer to Section 6

64. What is the correct order of clauses in a SELECT statement? Mark for Review

(1) Points

SELECT

FROM

WHERE

ORDER BY

HAVING

SELECT

FROM

HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

Correct

65. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary) (*)

GROUP BY MAX(salary)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Correct

66. The PLAYERS and TEAMS tables contain these columns:

PLAYERS

PLAYER_ID NUMBER NOT NULL, Primary Key

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

TEAM_ID NUMBER

POSITION VARCHAR2 (25)

TEAMS

TEAM_ID NUMBER NOT NULL, Primary Key

TEAM_NAME VARCHAR2 (25)

You need to create a report that lists the names of each team with more than three goal keepers.

Which SELECT statement will produce the desired result?

Mark for Review

(1) Points

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'GOAL KEEPER'
GROUP BY t.team_name;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players JOIN teams t ON (p.team_id = t.team_id)
WHERE UPPER(p.position) = 'GOAL KEEPER' HAVING COUNT(p.player_id) > 3;
```

```
SELECT t.team_name, COUNT(p.player_id)
FROM players p, teams t ON (p.team_id = t.team_id)
```

```
WHERE UPPER(p.position) = 'GOAL KEEPER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 3;
```

```
SELECT t.team_name, COUNT(p.player_id)  
FROM players p JOIN teams t ON (p.team_id = t.team_id)  
WHERE UPPER(p.position) = 'GOAL KEEPER'  
GROUP BY t.team_name HAVING COUNT(p.player_id) > 3;  
(*)
```

Incorrect. Refer to Section 6

67. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id  
FROM employees  
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

```
HAVING SUM(salary) > 100000 (*)
```


WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. You need to display all the players whose salaries are greater than or equal to John Brown's salary. Which comparison operator should you use? Mark for Review

(1) Points

=

>

<=

>= (*)

Correct

69. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Correct

70. Which operator can be used with a multiple-row subquery? Mark for Review

(1) Points

IN (*)

<>

=

LIKE

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

Correct

72. Which of the following is TRUE regarding the order of subquery execution? Mark for Review

(1) Points

The outer query is executed first

The subquery executes once after the main query

The subquery executes once before the main query (*)

The result of the main query is used with the subquery

Correct

Section 6 Lesson 3

(Answer all questions in this section)

73. Which comparison operator is best used with a single-row subquery? Mark for Review

(1) Points

ANY

ALL

<> (*)

IN

Incorrect. Refer to Section 6

74. Examine the following EMPLOYEES table:

EMPLOYEES

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

SUPERVISOR_ID NUMBER(9)

You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task?

Mark for Review

(1) Points

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
    (SELECT supervisor_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =  
    (SELECT supervisor_id  
    FROM employees  
    WHERE last_name = 'Carter');
```

```
SELECT *  
FROM supervisors  
WHERE supervisor_id =
```

```
(SELECT employee_id  
FROM supervisors  
WHERE last_name = 'Carter');
```

```
SELECT *  
FROM employees  
WHERE supervisor_id =  
  (SELECT employee_id  
   FROM employees  
   WHERE last_name = 'Carter');  
(*)
```

Incorrect. Refer to Section 6

75. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Correct

Section 6 Lesson 4

(Answer all questions in this section)

76. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
FROM payment
WHERE payment_id =
```

```
(SELECT payment_id  
FROM payment  
WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Mark for Review

(1) Points

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Correct

77. Which comparison operator would you use to compare a value to every value returned by a subquery? Mark for Review

(1) Points

SOME

ANY

ALL (*)

IN

Correct

78. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

MANAGER_ID NUMBER(9)

SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)

OLD_DEPT_ID NUMBER(9)

NEW_DEPT_ID NUMBER(9)

CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
      (SELECT employee_id, new_dept_id
       FROM depart_hist
       WHERE old_dept_id = 15) AND new_dept_id = 10;
```

(*)

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id) IN
      (SELECT employee_id
       FROM employee_hist
       WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) =
```

```
(SELECT employee_id, new_dept_id  
FROM depart_hist  
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id  
FROM employee  
WHERE (employee_id, department_id) IN  
(SELECT employee_id, dept_id  
FROM employee  
WHERE old_dept_id = 15);
```

Correct

79. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Correct

80. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description
FROM d_types
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description
FROM d_types
WHERE code <> ALL (SELECT type_code FROM d_songs);
```

All of the above. (*)

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. A multiple-row operator expects how many values? Mark for Review

(1) Points

One or more (*)

Only one

Two or more

None

Correct

82. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT payment_date, customer_id, payment_amount
FROM payment
WHERE payment_id =
```



```
(SELECT payment_id  
FROM payment  
WHERE payment_date >= '05-JAN-2002' OR payment_amount > 500.00);
```

Which change could correct the problem?

Mark for Review

(1) Points

Remove the subquery WHERE clause.

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Include the PAYMENT_ID column in the select list of the outer query.

Remove the single quotes around the date value in the inner query WHERE clause.

Correct

83. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
(SELECT customer_id
```

FROM customer

WHERE state_id = 'GA' AND credit_limit > 500.00);

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Correct

84. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

85. You need to display all the products that cost more than the maximum cost of every product produced in Japan. Which multiple-row comparison operator could you use? Mark for Review

(1) Points

>ANY (*)

NOT=ALL

IN

>IN

Correct

86. You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use? Mark for Review

(1) Points

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
  (SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
   FROM students  
  
   WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

Correct

88. The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

Mark for Review

(1) Points

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');

INSERT INTO products(product_id, product_name, supplier_id VALUES (2958, 'Cable', 8690, SYSDATE);

Correct

89. You need to copy rows from the EMPLOYEE table to the EMPLOYEE_HIST table. What could you use in the INSERT statement to accomplish this task? Mark for Review

(1) Points

an ON clause

a SET clause

a subquery (*)

a function

Incorrect. Refer to Section 7

90. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(25)

PROD_PRICE NUMBER(3)

You want to add the following row data to the PRODUCTS table:

(1) a NULL value in the PROD_ID column

(2) "6-foot nylon leash" in the PROD_NAME column

(3) "10" in the PROD_PRICE column

You issue this statement:

```
INSERT INTO products
```

```
VALUES (null,'6-foot nylon leash', 10);
```

What row data did you add to the table?

Mark for Review

(1) Points

The row was created with the correct data in all three columns. (*)

The row was created with the correct data in two of three columns.

The row was created with the correct data in one of the three columns.

The row was created completely wrong. No data ended up in the correct columns.

Incorrect. Refer to Section 7

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Correct

92. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You need to increase the salary for all employees in department 10 by 10 percent. You also need to increase the bonus for all employees in department 10 by 15 percent. Which statement should you use?

Mark for Review

(1) Points

UPDATE employees

SET salary = salary * 1.10, bonus = bonus * 1.15

WHERE department_id = 10;

(*)

UPDATE employees

SET salary = salary * 1.10 AND bonus = bonus * 1.15

WHERE department_id = 10;

UPDATE employees

SET (salary = salary * 1.10) SET (bonus = bonus * 1.15)

WHERE department_id = 10;

UPDATE employees

SET salary = salary * .10, bonus = bonus * .15

WHERE department_id = 10;

Incorrect. Refer to Section 7

93. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Correct

94. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

```
DELETE FROM products
WHERE supplier_id IN
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
(*)
```

```
DELETE FROM products
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products
WHERE supplier_id =
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products
WHERE supplier_id <
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ALANTA');
```

Correct

95. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review
(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Correct

96. What would happen if you issued a DELETE statement without a WHERE clause? Mark for Review

(1) Points

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

Correct

97. You need to update the expiration date of products manufactured before June 30th. In which clause of the UPDATE statement will you specify this condition? Mark for Review

(1) Points

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

Correct

98. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Correct

99. You need to remove a row from the EMPLOYEES table. Which statement would you use? Mark for Review

(1) Points

UPDATE with a WHERE clause

INSERT with a WHERE clause

DELETE with a WHERE clause (*)

MERGE with a WHERE clause

Correct

100. The EMPLOYEES table contains the following columns:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(9,2)

BONUS NUMBER(9,2)

You want to execute one DML statement to change the salary of all employees in department 10 to equal the new salary of employee id 89898. Currently, all employees in department 10 have the same salary value. Which statement should you execute?

Mark for Review

(1) Points

```
UPDATE employees  
SET salary = SELECT salary  
FROM employees  
WHERE employee_id = 89898;
```

```
UPDATE employees  
SET salary = (SELECT salary FROM employees WHERE employee_id = 89898);
```

```
UPDATE employees  
SET salary = (SELECT salary FROM employees WHERE employee_id = 89898)  
WHERE department_id = 10;  
(*)
```

```
UPDATE employees  
SET salary = (SELECT salary FROM employees WHERE employee_id = 89898 AND department_id = 10);
```

Incorrect. Refer to Section 7

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. You query the database with this SQL statement:

```
SELECT CONCAT(last_name,(SUBSTR(LOWER(first_name),4))) "Default Password"  
FROM employees;
```

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

2. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

3. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

4. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$') SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Incorrect. Refer to Section 1

5. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

6. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
----------	------------	----------	------

895840	SANDAL	85940	12.00
--------	--------	-------	-------

968950	SANDAL	85909	10.00
--------	--------	-------	-------

869506	SANDAL	89690	15.00
--------	--------	-------	-------

809090	LOAFER	89098	10.00
--------	--------	-------	-------

890890	LOAFER	89789	14.00
--------	--------	-------	-------

857689	HEEL	85940	11.00
--------	------	-------	-------

758960	SANDAL	86979	12.00
--------	--------	-------	-------

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2, 2)
```

```
FROM styles
```

```
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2, 2)
```

```
FROM styles
```

```
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
(*)
```

Correct

7. You need to display each employee's name in all uppercase letters. Which function should you use?
Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

9. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

10. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

12. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

```
SELECT hire_date + eval_months
```

```
FROM employees;
```

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Incorrect. Refer to Section 1

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

```
SELECT orderid, total
FROM orders
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'
ORDER BY total DESC;
```

```
SELECT orderid, total
FROM orders
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )
ORDER BY total;
```



```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;  
(*)
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'  
ORDER BY total DESC;
```

Incorrect. Refer to Section 1

15. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS  
FROM employees  
WHERE department_id = 90;
```

(*)

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS  
FROM employees  
WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS  
FROM employees  
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

Incorrect. Refer to Section 1

(Answer all questions in this section)

16. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

17. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

18. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

19. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

`TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)`

`NEXT_DAY(hire_date) + 5`

`SYSDATE - 6`

`SYSDATE + 30 / 24`

Incorrect. Refer to Section 2

20. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total  
FROM customers NATURAL JOIN orders  
WHERE total >= 2500;  
(*)
```

Incorrect. Refer to Section 2

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. Which three statements concerning explicit data type conversions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

Incorrect. Refer to Section 2

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Incorrect. Refer to Section 2

23. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

Mark for Review

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

Correct

24. You need to replace null values in the DEPARTMENT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

TO_NUMBER and NULLIF

Incorrect. Refer to Section 2

Section 3 Lesson 2

(Answer all questions in this section)

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect. Refer to Section 3

26. You need to provide a list of the first and last names of all employees who work in the Sales department who earned a bonus and had sales over \$50,000. The company president would like the sales listed starting with the highest amount first. The EMPLOYEES table and the SALES_DEPT table contain the following columns:

EMPLOYEES

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(8,2)

SALES_DEPT

SALES_ID NUMBER(10) PRIMARY KEY

SALES NUMBER(20)

QUOTA NUMBER(20)

MANAGER NUMBER(10)

BONUS NUMBER(10)

EMPLOYEE_ID NUMBER(10) FOREIGN KEY

Which SELECT statement will accomplish this task?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
FROM employees e, sales_dept s
ORDER BY sales DESC
WHERE e.employee_id = s.employee_id AND sales > 50000 AND s.bonus IS NOT NULL;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s. sales
ORDER BY sales DESC
FROM employees e, sales_dept s
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s. sales
WHERE e.employee_id = s.employee_id
FROM employees e, sales_dept s AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s. sales
```

```
FROM employees e, sales_dept s  
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000  
ORDER BY sales DESC;  
(*)
```

Incorrect. Refer to Section 3

27. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name  
FROM employees e, departments d  
WHERE e.department_id = d.department_id AND employees.department_id > 5000  
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name  
  
FROM employees e, departments d
```

WHERE e.department_id=d.department_id

AND employees.department_id > 5000 (*)

ORDER BY 4;

Incorrect. Refer to Section 3

28. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

SELECT patient_id, doctor_id

FROM patients, doctors;

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

Incorrect. Refer to Section 3

29. What is produced when a join condition is not specified in a multiple-table query using Oracle proprietary Join syntax? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Incorrect. Refer to Section 3

30. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Using Oracle Proprietary join syntax, which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Incorrect. Refer to Section 3

33. Using Oracle Proprietary join syntax, which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join two tables that have two columns with the same name, datatype and precision. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

Correct

35. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

Full outer join

Incorrect. Refer to Section 4

36. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

Correct

Section 4 Lesson 3

(Answer all questions in this section)

37. Which keyword in a SELECT statement creates an equijoin by specifying a column name common to both tables? Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Incorrect. Refer to Section 4

38. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name
FROM customers c, sales_order s
```

```
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name  
FROM customers c  
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Incorrect. Refer to Section 4

40. Evaluate this SELECT statement:

```
SELECT a.last_name || ', ' || a.first_name as "Patient", b.last_name || ', ' || b.first_name as "Physician",  
c.admission
```

```
FROM patient a
```

```
JOIN physician b
```

```
ON (b.physician_id = c.physician_id)
```

```
JOIN admission c
```

```
ON (a.patient_id = c.patient_id);
```

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id) (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Incorrect. Refer to Section 4

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. Which query represents the correct syntax for a left outer join? Mark for Review

(1) Points

```
SELECT companyname, orderdate, total  
FROM customers c  
LEFT JOIN orders o
```

ON c.cust_id = o.cust_id;

```
SELECT companyname, orderdate, total
FROM customers c
OUTER JOIN orders o
ON c.cust_id = o.cust_id;
```

```
SELECT companyname, orderdate, total
FROM customers c
LEFT OUTER JOIN orders o
ON c.cust_id = o.cust_id;
(*)
```

```
SELECT companyname, orderdate, total
FROM customers c
LEFT OUTER orders o
ON c.cust_id = o.cust_id;
```

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Incorrect. Refer to Section 4

Section 5 Lesson 1

(Answer all questions in this section)

44. Evaluate this SELECT statement:

```
SELECT MAX(salary), department_id
```

```
FROM employees
```

```
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Correct

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Incorrect. Refer to Section 5

46. If a select list contains both columns as well as groups function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Incorrect. Refer to Section 5

Section 5 Lesson 2

(Answer all questions in this section)

48. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

49. The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

Mark for Review

(1) Points

SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)

SELECT AVG (price) FROM trucks WHERE model IS '4x4';

SELECT AVG(price) FROM trucks WHERE model IS 4x4;

SELECT AVG(price), model FROM trucks WHERE model = '4x4';

Correct

50. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Which aggregate function can be used on a column of the DATE data type? Mark for Review

(1) Points

AVG

MAX (*)

STDDEV

SUM

Incorrect. Refer to Section 5

52. Which group function would you use to display the highest salary value in the EMPLOYEE table?
Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
```

FROM products;

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

54. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

55. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER (7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Incorrect. Refer to Section 5

Section 5 Lesson 3

(Answer all questions in this section)

56. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM employees
```

```
WHERE salary > 30000;
```

Which results will the query display?

Mark for Review

(1) Points

The number of employees that have a salary less than 30000.

The total of the SALARY column for all employees that have a salary greater than 30000.

The number of rows in the EMPLOYEES table that have a salary greater than 30000. (*)

The query generates an error and returns no results.

Correct

57. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

```
SELECT * FROM employees  
WHERE salary > 50000;
```

```
SELECT * FROM employees  
WHERE salary < 50000;
```



```
SELECT COUNT(*) FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000;  
(*)
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

Incorrect. Refer to Section 5

58. Evaluate this SQL statement:

```
SELECT COUNT (amount)  
FROM inventory;
```

What will occur when the statement is issued?

Mark for Review

(1) Points

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

Incorrect. Refer to Section 5

59. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Incorrect. Refer to Section 5

Section 6 Lesson 1

(Answer all questions in this section)

60. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id  
FROM employees  
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you should use a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

62. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

SELECT customer_id, COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

(*)

SELECT COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';

SELECT customer_id, COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';

SELECT COUNT(payment_id)

FROM payment

WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'

GROUP BY customer_id;

Incorrect. Refer to Section 6

63. Evaluate this SELECT statement:

```
SELECT COUNT(emp_id), mgr_id, dept_id  
FROM employee  
WHERE status = 'I'  
GROUP BY dept_id  
HAVING salary > 30000  
ORDER BY 2;
```

Why does this statement return a syntax error?

Mark for Review

(1) Points

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

Incorrect. Refer to Section 6

64. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id  
FROM employees  
GROUP BY department_id;
```

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Incorrect. Refer to Section 6

65. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary) (*)

GROUP BY MAX(salary)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

66. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, hire_date, department_id, SUM(salary)
```

```
FROM employees
```

```
WHERE salary > 25000
```

```
GROUP BY department_id, id_number, name
```

```
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect. Refer to Section 6

67. Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
HAVING AVG(salary) > 35000
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

```
GROUP BY job_id, department_id
```

HAVING AVG(salary) > 35000 (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Incorrect. Refer to Section 6

69. Which operator can be used with a multiple-row subquery? Mark for Review

(1) Points

IN (*)

<>

=

LIKE

Incorrect. Refer to Section 6

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

```
SELECT *  
FROM teachers  
WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);
```

```
SELECT *  
FROM class_assignments  
WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);
```

Incorrect. Refer to Section 6

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. Using a subquery in which of the following clauses will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

You can use subqueries in all of the above clauses. (*)

Correct

72. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points


```
SELECT product_name  
FROM products  
WHERE cost > (SELECT AVG(cost) FROM product);  
(*)
```

```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```

Incorrect. Refer to Section 6

Section 6 Lesson 3

(Answer all questions in this section)

73. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

75. Which statement about the <> operator is true? Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

Incorrect. Refer to Section 6

Section 6 Lesson 4

(Answer all questions in this section)

76. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

77. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

MANAGER_ID NUMBER(9)

SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)

OLD_DEPT_ID NUMBER(9)

NEW_DEPT_ID NUMBER(9)

CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
WHERE (employee_id, department_id) IN
      (SELECT employee_id, new_dept_id
```

```
FROM depart_hist  
WHERE old_dept_id = 15) AND new_dept_id = 10;  
(*)
```

```
SELECT employee_id, last_name, first_name, department_id  
FROM employee  
WHERE (employee_id) IN  
(SELECT employee_id  
FROM employee_hist  
WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id  
FROM employee  
WHERE (employee_id, department_id) =  
(SELECT employee_id, new_dept_id  
FROM depart_hist  
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id  
FROM employee  
WHERE (employee_id, department_id) IN  
(SELECT employee_id, dept_id
```

```
FROM employee  
WHERE old_dept_id = 15);
```

Incorrect. Refer to Section 6

78. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description  
FROM d_types  
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description  
FROM d_types  
WHERE code <> ALL (SELECT type_code FROM d_songs);
```


All of the above. (*)

Incorrect. Refer to Section 6

79. Evaluate this SELECT statement:

```
SELECT customer_id, name  
FROM customer  
WHERE customer_id IN  
    (SELECT customer_id  
     FROM customer  
     WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

80. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Correct

82. Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name
FROM student
WHERE major_id NOT IN
    (SELECT major_id
     FROM majors
     WHERE department_head_id = 30 AND title = 'ADJUNCT');
```

What would happen if the inner query returned a NULL value row?

Mark for Review

(1) Points

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Correct

83. Which of the following is a valid reason why the query below will not execute successfully?

```
SELECT employee_id, last_name, salary  
FROM employees  
WHERE department_id =  
    (SELECT department_id FROM employees WHERE last_name like '%u%')
```

Mark for Review

(1) Points

First subquery not enclosed in parenthesis

Single rather than multiple value operator used. (*)

Second subquery found on the right instead of the left side of the operator.

The greater than operator is not valid.

Incorrect. Refer to Section 6

84. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name  
FROM customer
```

```
WHERE area_code IN  
  
(SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name  
  
FROM employees  
  
WHERE salary =  
  
(SELECT MIN(salary) FROM employees GROUP BY department_id);
```

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
```

```
FROM employees
```

```
WHERE department_id IN
```

```
(SELECT department_id
```

```
FROM departments
```

```
WHERE department_name = 'Executive');
```

Mark for Review

(1) Points

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
(SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
FROM students  
  
WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Correct

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Incorrect. Refer to Section 7

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments(department_id,department_name,manager_id,location_id)  
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

UPDATE employees

```
SET last_name = 'cooper'
WHERE last_name = 'roper';
(*)
```

```
UPDATE employees last_name = 'cooper'
WHERE last_name = 'roper';
```

```
UPDATE employees
SET last_name = 'roper'
WHERE last_name = 'cooper';
```

```
UPDATE employees
SET cooper = 'last_name'
WHERE last_name = 'roper';
```

Correct

92. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Incorrect. Refer to Section 7

93. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Incorrect. Refer to Section 7

94. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

MERGE (*)

SELECT

UPDATE (*)

Incorrect. Refer to Section 7

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

DELETE FROM products

WHERE supplier_id IN

```
(SELECT supplier_id  
FROM suppliers  
WHERE UPPER(city) = 'ATLANTA');  
(*)
```

```
DELETE FROM products  
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products  
WHERE supplier_id =  
(SELECT supplier_id  
FROM suppliers  
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products  
WHERE supplier_id <  
(SELECT supplier_id  
FROM suppliers  
WHERE UPPER(city) = 'ALANTA');
```

Correct

98. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Incorrect. Refer to Section 7

99. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

Incorrect. Refer to Section 7

100. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Incorrect. Refer to Section 7

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S1L2

1.

You issue this SQL statement:

```
SELECT INSTR ('organizational sales', 'al')
```

```
FROM dual;
```

Which value is returned by this command?

1

2

13 (*)

17

2.

Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employee;
```

What will this SELECT statement display?

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

3.

Which SQL function can be used to remove heading or trailing characters (or both) from a character string?

LPAD

CUT

NVL2

TRIM (*)

4.

Which functions can be used to manipulate character, number, and date column values?

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

5.

You need to display the number of characters in each customer's last name. Which function should you use?

LENGTH (*)

LPAD

COUNT

SUBSTR

6.

Which SQL function is used to return the position where a specific character string begins within a larger character string?

CONCAT

INSTR (*)

LENGTH

SUBSTR

7.

You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use?

INSTR

TRUNC

SUBSTR (*)

CONCAT

8.

Evaluate this function: MOD (25, 2) Which value is returned?

1 (*)

2

25

0

9.

Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.)

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

10. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

1200

1282

1282.25

1300 (*)

S1L3

11.

You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue?

```
SELECT orderid, total
```

```
FROM orders
```

```
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'
```

```
ORDER BY total DESC;
```

```
SELECT orderid, total
```

```
FROM orders
```

```
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )
```

```
ORDER BY total;
```

```
SELECT orderid, total
```

```
FROM orders
```

```
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'
```

ORDER BY total DESC;

(*)

SELECT orderid, total

FROM orders

WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'

ORDER BY total DESC;

12.

You need to display the number of months between today's date and each employee's hiredate. Which function should you use?

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

13.

Which of the following Date Functions will add calendar months to a date?

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

14.

Which function would you use to return the current database server date and time?

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

15.

The EMPLOYEE table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

SELECT hire_date + eval_months

FROM employee;

The values returned by this SELECT statement will be of which data type?

DATE (*)

NUMBER

DATETIME

INTEGER

S2 L1

16.

All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result?

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

17.

The EMPLOYEES table contains these columns:

EMPLOYEE_IDNUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

```
SELECT TO_CHAR(salary, '$999,999')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')
```

```
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')
```

```
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')
```

```
FROM employees; (*)
```

18.

Which statement concerning single row functions is true?

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

19.

Which best describes the TO_CHAR function?

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

20.

If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result?

2001

1901

2017 (*)

1917

21.

Which functions allow you to perform explicit data type conversions?

ROUND, TRUNC, ADD_MONTHS

LENGTH, SUBSTR, LPAD, TRIM

TO_CHAR, TO_DATE, TO_NUMBER (*)

NVL, NVL2, NULLIF

S2L2

22.

When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null?

```
SELECT NVL(tuition_balance + housing_balance, 0) "Balance Due"
FROM student_accounts; (*)
```

```
SELECT NVL(tuition_balance, 0), NVL(housing_balance), tuition_balance + housing_balance "Balance Due"
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER(housing_balance, 0), tuition_balance +
housing_balance "Balance Due"
FROM student_accounts;
```

23.

Which of the following General Functions will return the first non-null expression in the expression list?

NVL

NVL2

NULLIF

COALESCE (*)

24.

The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

S3 L2

25.

You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task?

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary = 25000 AND dept_id = 10;
```



```
SELECT last_name, first_name, salary
FROM employees
WHERE salary <= 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary
FROM employees
WHERE salary != 25000 AND dept_id = 10;      (*)
```

26.

Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
FROM employees e, departments d
WHERE e.department_id = d.department_id AND employees.department_id > 5000
ORDER BY 4;
```

Which clause contains a syntax error?

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

```
FROM employees e, departments d
```

WHERE e.department_id = d.department_id

AND employees.department_id > 5000 (*)

ORDER BY 4;

27.

What happens when you create a Cartesian product?

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

28.

What is produced when a join condition is not specified in a multiple-table query?

a self-join

an outer join

an equijoin

a Cartesian product (*)

29.

The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

```
SELECT patient_id, doctor_id
```

```
FROM patients, doctors;
```

Which result will this statement provide?

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

30.

You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue?

```
SELECT e.fname, e.lname, s.sales
```

```
FROM employees e, sales s
```

```
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales
```

```
FROM employees e, sales s
```

```
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

(*)

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
Q FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

31-40?????

S 4 L4

41. You need to display all the rows from both the EMPLOYEE and EMPLOYEE_HIST tables. Which type of join would you use?

- ☐ a right outer join
- ☐ a left outer join
- ☐ a full outer join (*)
- ☐ an inner join

42. What should be included in a SELECT statement to return NULL values from all tables?

- ☐ natural joins
- ☐ left outer joins
- ☐ full outer joins (*)
- ☐ right outer joins

43. You need to join the EMPLOYEE_HIST and EMPLOYEE tables. The EMPLOYEE_HIST table will be the first table in the FROM clause. All the matched and unmatched rows in the EMPLOYEE table need to be displayed. Which type of join will you use?

- ☐ a cross join
- ☐ an inner join
- ☐ a left outer join
- ☐ a right outer join (*)

S 5 L1

44. Which statement about the GROUP BY clause is true?

- ☐ The first column listed in the GROUP BY clause is the most major grouping. (*)
- ☐ The last column listed in the GROUP BY clause is the most major grouping.
- ☐ The GROUP BY clause can contain an aggregate function.
- ☐ A GROUP BY clause cannot be used without an ORDER BY clause.

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), dept_id
FROM employee
GROUP BY dept_id;
```

Which values are displayed?

- ☐ The earliest hire date in each department. (*)

- ☐ The the earliest hire date in the EMPLOYEE table.
- ☐ The latest hire date in the EMPLOYEE table.
- ☐ The hire dates in the EMPLOYEE table that contain NULL values.

46. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)
```

```
FROM employees
```

```
GROUP BY job_id;
```

- ☐ Displays all the employees and groups them by job.
- ☐ Displays each job id and the number of people assigned to that job id. (*)
- ☐ Displays only the number of job_ids.
- ☐ Displays all the jobs with as many people as there are jobs.

47. Group functions can be nested to a depth of

- ☐ three
- ☐ four
- ☐ two (*)
- ☐ Group functions cannot be nested.

S 5 L2

48. Which group function would you use to display the total of all salary values in the EMPLOYEE table?

- ☐ SUM (*)
- ☐ AVG
- ☐ COUNT

- ☐ MAX

49. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

- ☐ AVG
- ☐ COUNT
- ☐ MAX
- ☐ MIN (*)

50. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

- ☐ SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003'; (*)
- ☐ SELECT AVG(payment_amount)
FROM payment;
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
- ☐ SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
- ☐ SELECT AVG(payment_amount)

FROM payment

WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);

S5 L2

51.

The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)

SELECT AVG (price) FROM trucks WHERE model IS '4x4';

SELECT AVG(price) FROM trucks WHERE model IS 4x4;

SELECT AVG(price), model FROM trucks WHERE model IS '4x4';

52.

The CUSTOMER table contains these columns:

CUSTOMER_ID NUMBER(9)

FNAME VARCHAR2(25)

LNAME VARCHAR2(30)

CREDIT_LIMIT NUMBER (7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

AVG (*)

SUM

COUNT

STDDEV

53.

The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

54.

Which group function would you use to display the highest salary value in the EMPLOYEE table?

AVG

COUNT

MAX (*)

MIN

55.

Which group function would you use to display the average price of all products in the PRODUCTS table?

SUM

AVG (*)

COUNT

MAX

S5L3

56.

Which SELECT statement will calculate the number of rows in the PRODUCTS table?

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

57.

Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10
768385	862459	849869	5.60	0.05

867950 985490 945809 5.60

954039 439203 438925 5.25 0.15

543949 349302 453235 4.50

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

SELECT COUNT(discount) FROM line_item;

SELECT COUNT(*) FROM line_item; (*)

SELECT SUM(discount) FROM line_item;

SELECT AVG(discount) FROM line_item;

58.

Evaluate this SQL statement:

SELECT COUNT (amount)

FROM inventory;

What will occur when the statement is issued?

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

59.

Which statement about the COUNT function is true?

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

S6L1

60.

What is the correct order of clauses in a SELECT statement?

SELECT

FROM

WHERE

ORDER BY

HAVING

SELECT

FROM

HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

61.

Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, department_name
```

```
FROM employee
```

```
WHERE dept_id = 1
```

```
GROUP BY department;
```

Which clause of the SELECT statement contains a syntax error?

SELECT

FROM

WHERE

GROUP BY (*)

62.

Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, mgr_id
```

```
FROM employee
```

```
GROUP BY dept_id, mgr_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

```
HAVING SUM(salary) > 100000 (*)
```

```
WHERE SUM(salary) > 100000
```

```
WHERE salary > 100000
```

HAVING salary > 100000

63.

Evaluate this SELECT statement:

```
SELECT COUNT(emp_id), mgr_id, dept_id
```

```
FROM employee
```

```
WHERE status = 'I'
```

```
GROUP BY dept_id
```

```
HAVING salary > 30000
```

```
ORDER BY 2;
```

Why does this statement return a syntax error?

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

64.

The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

SELECT prod_cat, MIN (prod_price)

FROM products

GROUP BY prod_price;

SELECT prod_cat, MIN (prod_price)

FROM products

GROUP BY prod_cat;

(*)

SELECT MIN (prod_price), prod_cat

FROM products

GROUP BY MIN (prod_price), prod_cat;

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

65.

Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
HAVING AVG(salary) > 35000
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

```
GROUP BY job_id, department_id
```

HAVING AVG(salary) > 35000 (*)

66.

You want to write a report that returns the average salary of all employees in the company, sorted by departments. The EMPLOYEES table contains the following columns:

EMPLOYEES:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which SELECT statement will return the information that you require?

SELECT salary (AVG)

FROM employees

GROUP BY dept;

SELECT AVG (salary)

FROM employees

GROUP BY dept; (*)

SELECT AVG (salary)

FROM employees

BY dept;

SELECT AVG salary

FROM employees

BY dept;

67.

Which statement about the GROUP BY clause is true?

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

S6L2

68.

Using a subquery in which clause will return a syntax error?

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

69.

Which operator can be used with subqueries that return only one row?

LIKE (*)

ANY

ALL

IN

70.

If you use the equality operator (=) with a subquery, how many values can the subquery return?

only 1 (*)

up to 2

up to 5

unlimited

71.

Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

72.

Which operator can be used with a multiple-row subquery?

IN (*)

<>

=

LIKE

S6 L3

73.

Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

74.

Which best describes a single-row subquery?

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

75.

You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task?

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
    WHERE last_name = 'Carter');
```

```
SELECT *  
  
FROM supervisors  
  
WHERE supervisor_id =  
  
    (SELECT supervisor_id  
  
     FROM employees  
  
     WHERE last_name = 'Carter');
```

```
SELECT *  
  
FROM supervisors  
  
WHERE supervisor_id =  
  
    (SELECT employee_id  
  
     FROM supervisors  
  
     WHERE last_name = 'Carter');
```

```
SELECT *  
  
FROM employees  
  
WHERE supervisor_id =  
  
    (SELECT employee_id  
  
     FROM employees  
  
     WHERE last_name = 'Carter');    (*)
```

S6 L4

76. Which best describes a multiple-row subquery?

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

77. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM departments
     WHERE department_name = 'Executive');
```

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

78. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

79. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
```

```
FROM payment
```

```
WHERE payment_id =
```

```
(SELECT payment_id
```

```
FROM payment
```

```
WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

80. Which operator or keyword cannot be used with a multiple-row subquery?

ALL

ANY

= (*)

>

81.

Which of the following best describes the meaning of the ANY operator?

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Incorrect. Refer to Section 6

82.

Which statement about single-row and multiple-row subqueries is true?

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

83.

Evaluate this SELECT statement:

```
SELECT customer_id, name
```

```
FROM customer
```

```
WHERE customer_id IN
```

```
  (SELECT customer_id
```

```
    FROM customer
```

```
    WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

84.

Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name
```

```
FROM student
```

```
WHERE major_id NOT IN
```

```
  (SELECT major_id
```

```
    FROM majors
```

```
    WHERE department_head_id = 30 AND title = 'ADJUNCT');
```

What would happen if the inner query returned a NULL value row?

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Incorrect. Refer to Section 6

85.

You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use?

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

86.

Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name
```

```
FROM customer
```

WHERE area_code IN

(SELECT area_code FROM sales WHERE salesperson_id = 20);

Which statement is true about the given subquery?

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

S7L1

87.

The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
  (SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
   FROM students  
  
   WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

88.

Using the INSERT statement, and assuming that a column can accept null values, how can you implicitly insert a null value in a column?

Use the NULL keyword.

Use the ON clause

Omit the column in the column list. (*)

It is not possible to implicitly insert a null value in a column.

89.

The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);

```
INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');
```

```
INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);
```

Incorrect. Refer to Section 7

90.

You need to add a row to an existing table. Which DML statement should you use?

UPDATE

INSERT (*)

DELETE

CREATE

S7L2

91.

You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns?

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

92.

Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Incorrect. Refer to Section 7

93.

What would happen if you issued a DELETE statement without a WHERE clause?

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

94.

One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

UPDATE employees

SET cooper = 'lname'

WHERE lname = 'roper';

95.

When the WHERE clause is missing in a DELETE statement, what is the result?

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

96.

The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

UPDATE players (salary) SET salary = salary * 1.125;

```
UPDATE players SET salary = salary * .125 WHERE team_id = 5960;
```

```
UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)
```

```
UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;
```

97.

The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

98.

Evaluate this statement: `DELETE FROM customer;` Which statement is true?

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

99.

You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition?

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

100.

You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows?

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 1

(Answer all questions in this section)

1. You query the database with this SQL statement:

```
SELECT CONCAT(last_name, (SUBSTR(LOWER(first_name), 4))) "Default Password"
```

FROM employees;

Which function will be evaluated first?

Mark for Review

(1) Points

CONCAT

SUBSTR

LOWER (*)

All three will be evaluated simultaneously.

Correct

2. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Correct

3. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

```
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

4. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$')SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Incorrect. Refer to Section 1

5. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)), 1,5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Correct

6. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00
758960	SANDAL	86979	12.00

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```



```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
(*)
```

Correct

7. You need to display each employee's name in all uppercase letters. Which function should you use?
Mark for Review

(1) Points

CASE

UCASE

UPPER (*)

TOUPPER

Correct

Section 1 Lesson 2

(Answer all questions in this section)

8. Which comparison operator retrieves a list of values? Mark for Review

(1) Points

IN (*)

LIKE

BETWEEN...IN...

IS NULL

Incorrect. Refer to Section 1 Lesson 1

9. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

10. Evaluate this function: MOD (25, 2) Which value is returned? Mark for Review

(1) Points

1 (*)

2

25

0

Correct

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1 Lesson 3

(Answer all questions in this section)

11. Which of the following Date Functions will add calendar months to a date? Mark for Review

(1) Points

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

Correct

12. The EMPLOYEES table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

```
SELECT hire_date + eval_months  
FROM employees;
```

The values returned by this SELECT statement will be of which data type?

Mark for Review

(1) Points

DATE (*)

NUMBER

DATETIME

INTEGER

Incorrect. Refer to Section 1

13. You need to subtract three months from the current date. Which function should you use? Mark for Review

(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

14. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review

(1) Points

```
SELECT orderid, total
FROM orders
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'
ORDER BY total DESC;
```

```
SELECT orderid, total
FROM orders
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )
```

ORDER BY total;

```
SELECT orderid, total
FROM orders
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'
ORDER BY total DESC;
(*)
```

```
SELECT orderid, total
FROM orders
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'
ORDER BY total DESC;
```

Incorrect. Refer to Section 1

15. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS
FROM employees
```


WHERE department_id = 90;

(*)

SELECT last_name, (SYSDATE-hire_date)/7 DISPLAY WEEKS

FROM employees

WHERE department_id = 90;

SELECT last_name, # of WEEKS

FROM employees

WHERE department_id = 90;

SELECT last_name, (SYSDATE-hire_date)AS WEEK

FROM employees

WHERE department_id = 90;

Incorrect. Refer to Section 1

Section 2 Lesson 1

(Answer all questions in this section)

16. If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result? Mark for Review

(1) Points

2001

1901

2017 (*)

1917

Correct

17. Which two statements concerning SQL functions are true? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

Character functions can accept numeric input.

Not all date functions return date values. (*)

Number functions can return number or character values.

Conversion functions convert a value from one data type to another data type. (*)

Single-row functions manipulate groups of rows to return one result per group of rows.

Incorrect. Refer to Section 2

18. All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result? Mark for Review

(1) Points

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

Incorrect. Refer to Section 2

19. Which arithmetic operation will return a numeric value? Mark for Review

(1) Points

`TO_DATE('01-JUN-2004') - TO_DATE('01-OCT-2004') (*)`

`NEXT_DAY(hire_date) + 5`

`SYSDATE - 6`

`SYSDATE + 30 / 24`

Incorrect. Refer to Section 2

20. You have been asked to create a report that lists all customers who have placed orders of at least \$2,500. The report's date should be displayed in the Day, Date Month, Year format (For example, Tuesday, 13 April, 2004). Which statement should you issue? Mark for Review

(1) Points

```
SELECT companyname, TO_CHAR (sysdate, 'fmdd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (date, 'day, dd month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_DATE (sysdate, 'dd, dy month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;
```

```
SELECT companyname, TO_CHAR (sysdate, 'fmDay, dd Month, yyyy'), total
FROM customers NATURAL JOIN orders
WHERE total >= 2500;

(*)
```

Incorrect. Refer to Section 2

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2 Lesson 1

(Answer all questions in this section)

21. Which three statements concerning explicit data type conversions are true? (Choose three.) Mark for Review

(1) Points

(Choose all correct answers)

Use the TO_NUMBER function to convert a number to a character string.

Use the TO_DATE function to convert a character string to a date value. (*)

Use the TO_NUMBER function to convert a character string of digits to a number. (*)

Use the TO_DATE function to convert a date value to character string or number.

Use the TO_CHAR function to convert a number or date value to character string. (*)

Incorrect. Refer to Section 2

Section 2 Lesson 2

(Answer all questions in this section)

22. Which statement about group functions is true? Mark for Review

(1) Points

NVL and NVL2, but not COALESCE, can be used with group functions to replace null values.

NVL and COALESCE, but not NVL2, can be used with group functions to replace null values.

NVL, NVL2, and COALESCE can be used with group functions to replace null values. (*)

COALESCE, but not NVL and NVL2, can be used with group functions to replace null values.

Incorrect. Refer to Section 2

23. The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')  
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

Mark for Review

(1) Points

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

Correct

24. You need to replace null values in the DEPARTMENT_ID column with the text "N/A". Which functions should you use? Mark for Review

(1) Points

TO_CHAR and NVL (*)

TO_CHAR and NULL

TO_CHAR and NULLIF

TO_NUMBER and NULLIF

Incorrect. Refer to Section 2

Section 3 Lesson 2

(Answer all questions in this section)

25. When joining 3 tables in a SELECT statement, how many join conditions are needed in the WHERE clause? Mark for Review

(1) Points

0

1

2 (*)

3

Incorrect. Refer to Section 3

26. You need to provide a list of the first and last names of all employees who work in the Sales department who earned a bonus and had sales over \$50,000. The company president would like the sales listed starting with the highest amount first. The EMPLOYEES table and the SALES_DEPT table contain the following columns:

EMPLOYEES

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(8,2)

SALES_DEPT

SALES_ID NUMBER(10) PRIMARY KEY

SALES NUMBER(20)

QUOTA NUMBER(20)

MANAGER NUMBER(10)

BONUS NUMBER(10)

EMPLOYEE_ID NUMBER(10) FOREIGN KEY

Which SELECT statement will accomplish this task?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
FROM employees e, sales_dept s
ORDER BY sales DESC
WHERE e.employee_id = s.employee_id AND sales > 50000 AND s.bonus IS NOT NULL;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
ORDER BY sales DESC
FROM employees e, sales_dept s
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
WHERE e.employee_id = s.employee_id
FROM employees e, sales_dept s AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
```

```
SELECT e.employee_id, e.last_name, e.first_name, s.employee_id, s.bonus, s.sales
FROM employees e, sales_dept s
WHERE e.employee_id = s.employee_id AND s.bonus IS NOT NULL AND sales > 50000
ORDER BY sales DESC;
(*)
```

Incorrect. Refer to Section 3

27. Evaluate this SQL statement:

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
FROM employees e, departments d
WHERE e.department_id = d.department_id AND employees.department_id > 5000
ORDER BY 4;
```

Which clause contains a syntax error?

Mark for Review

(1) Points

```
SELECT e.employee_id, e.last_name, e.first_name, d.department_name
```

FROM employees e, departments d

WHERE e.department_id=d.department_id

AND employees.department_id > 5000 (*)

ORDER BY 4;

Incorrect. Refer to Section 3

28. The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

SELECT patient_id, doctor_id

FROM patients, doctors;

Which result will this statement provide?

Mark for Review

(1) Points

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

Incorrect. Refer to Section 3

29. What is produced when a join condition is not specified in a multiple-table query using Oracle proprietary Join syntax? Mark for Review

(1) Points

a self-join

an outer join

an equijoin

a Cartesian product (*)

Incorrect. Refer to Section 3

30. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3 Lesson 4

(Answer all questions in this section)

31. Using Oracle Proprietary join syntax, which two operators can be used in an outer join condition using the outer join operator (+)? Mark for Review

(1) Points

AND and = (*)

OR and =

BETWEEN...AND... and IN

IN and =

Correct

32. Which statement about outer joins is true? Mark for Review

(1) Points

The tables must be aliased.

The FULL, RIGHT, or LEFT keyword must be included.

The OR operator cannot be used to link outer join conditions. (*)

Outer joins are always evaluated before other types of joins in the query.

Incorrect. Refer to Section 3

33. Using Oracle Proprietary join syntax, which operator would you use after one of the column names in the WHERE clause when creating an outer join? Mark for Review

(1) Points

(+) (*)

*

+

=

Correct

Section 4 Lesson 2

(Answer all questions in this section)

34. You need to join two tables that have two columns with the same name, datatype and precision. Which type of join would you create to join the tables on both of the columns? Mark for Review

(1) Points

Natural join (*)

Cross join

Outer join

Self-join

Correct

35. A join between tables where the result set includes matching values from both tables but does NOT return any unmatched rows could be called which of the following? (Choose three) Mark for Review

(1) Points

(Choose all correct answers)

Equijoin (*)

Self join (*)

Nonequijoin

Simple join (*)

Full outer join

Incorrect. Refer to Section 4

36. Which of the following conditions will cause an error on a NATURAL JOIN? Mark for Review

(1) Points

When you attempt to write it as an equijoin.

When the NATURAL JOIN clause is based on all columns in the two tables that have the same name.

If it selects rows from the two tables that have equal values in all matched columns.

If the columns having the same names have different data types, then an error is returned. (*)

Correct

Section 4 Lesson 3

(Answer all questions in this section)

37. Which keyword in a SELECT statement creates an equijoin by specifying a column name common to both tables? Mark for Review

(1) Points

A HAVING clause

The FROM clause

The SELECT clause

A USING clause (*)

Incorrect. Refer to Section 4

38. Below find the structure of the CUSTOMERS and SALES_ORDER tables:

CUSTOMERS

CUSTOMER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_NAME VARCHAR2 (30)

CONTACT_NAME VARCHAR2 (30)

CONTACT_TITLE VARCHAR2 (20)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (20)

COUNTRY_ID NUMBER Foreign key to COUNTRY_ID column of the COUNTRY table

PHONE VARCHAR2 (20)

FAX VARCHAR2 (20)

CREDIT_LIMIT NUMBER(7,2)

SALES_ORDER

ORDER_ID NUMBER NOT NULL, Primary Key

CUSTOMER_ID NUMBER Foreign key to CUSTOMER_ID column of the CUSTOMER table

ORDER_DT DATE

ORDER_AMT NUMBER (7,2)

SHIP_METHOD VARCHAR2 (5)

You need to create a report that displays customers without a sales order. Which statement could you use?

Mark for Review

(1) Points

```
SELECT c.customer_name
FROM customers c
WHERE c.customer_id not in (SELECT s.customer_id FROM sales_order s);
(*)
```

```
SELECT c.customer_name
FROM customers c, sales_order s
WHERE c.customer_id=s.customer_id(+);
```

```
SELECT c.customer_name  
FROM customers c, sales_order s  
WHERE c.customer_id (+) = s.customer_id;
```

```
SELECT c.customer_name  
FROM customers c  
RIGHT OUTER JOIN sales_order s ON (c.customer_id = s.customer_id);
```

Incorrect. Refer to Section 4

39. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It permits columns with different names to be joined (*)

It permits columns that don't have matching data types to be joined

Incorrect. Refer to Section 4

40. Evaluate this SELECT statement:

```
SELECT a.last_name || ', ' || a.first_name as "Patient", b.last_name || ', ' || b.first_name as "Physician",  
c.admission
```

```
FROM patient a
```

```
JOIN physician b
```

```
ON (b.physician_id = c.physician_id)
```

```
JOIN admission c
```

```
ON (a.patient_id = c.patient_id);
```

Which clause generates an error?

Mark for Review

(1) Points

JOIN physician b

ON (b.physician_id = c.physician_id) (*)

JOIN admission c

ON (a.patient_id = c.patient_id)

Incorrect. Refer to Section 4

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 4 Lesson 4

(Answer all questions in this section)

41. Which query represents the correct syntax for a left outer join? Mark for Review

(1) Points

```
SELECT companyname, orderdate, total
```

FROM customers c

LEFT JOIN orders o

ON c.cust_id = o.cust_id;

SELECT companyname, orderdate, total

FROM customers c

OUTER JOIN orders o

ON c.cust_id = o.cust_id;

SELECT companyname, orderdate, total

FROM customers c

LEFT OUTER JOIN orders o

ON c.cust_id = o.cust_id;

(*)

SELECT companyname, orderdate, total

FROM customers c

LEFT OUTER orders o

ON c.cust_id = o.cust_id;

Incorrect. Refer to Section 4

42. Which two sets of join keywords create a join that will include unmatched rows from the first table specified in the SELECT statement? Mark for Review

(1) Points

LEFT OUTER JOIN and FULL OUTER JOIN (*)

RIGHT OUTER JOIN and LEFT OUTER JOIN

USING and HAVING

OUTER JOIN and USING

Incorrect. Refer to Section 4

43. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HISTS tables. Which type of join would you use? Mark for Review

(1) Points

a right outer join

a left outer join

a full outer join (*)

an inner join

Incorrect. Refer to Section 4

Section 5 Lesson 1

(Answer all questions in this section)

44. Evaluate this SELECT statement:

```
SELECT MAX(salary), department_id
```

```
FROM employees
```

```
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The highest salary for all employees.

The highest salary in each department. (*)

The employees with the highest salaries.

The employee with the highest salary for each department.

Correct

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), department_id  
FROM employees  
GROUP BY department_id;
```

Which values are displayed?

Mark for Review

(1) Points

The earliest hire date in each department. (*)

The the earliest hire date in the EMPLOYEES table.

The latest hire date in the EMPLOYEES table.

The hire dates in the EMPLOYEES table that contain NULL values.

Incorrect. Refer to Section 5

46. If a select list contains both columns as well as groups function then what clause is required? Mark for Review

(1) Points

having clause

join clause

order by clause

group by clause (*)

Incorrect. Refer to Section 5

47. Group functions can be nested to a depth of? Mark for Review

(1) Points

three

four

two (*)

Group functions cannot be nested.

Incorrect. Refer to Section 5

Section 5 Lesson 2

(Answer all questions in this section)

48. You need to calculate the standard deviation for the cost of products produced in the Birmingham facility. Which group function will you use? Mark for Review

(1) Points

STDEV

STDDEV (*)

VAR_SAMP

VARIANCE

Incorrect. Refer to Section 5

49. The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

Mark for Review

(1) Points

SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)

SELECT AVG (price) FROM trucks WHERE model IS '4x4';

SELECT AVG(price) FROM trucks WHERE model IS 4x4;

SELECT AVG(price), model FROM trucks WHERE model = '4x4';

Correct

50. You need to compute the total salary for all employees in department 10. Which group function will you use? Mark for Review

(1) Points

MAX

SUM (*)

VARIANCE

COUNT

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 5 Lesson 2

(Answer all questions in this section)

51. Which aggregate function can be used on a column of the DATE data type? Mark for Review

(1) Points

AVG

MAX (*)

STDDEV

SUM

Incorrect. Refer to Section 5

52. Which group function would you use to display the highest salary value in the EMPLOYEE table?

Mark for Review

(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

53. The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR2(30)

PROD_CAT VARCHAR2(30)

PROD_PRICE NUMBER(3)

PROD_QTY NUMBER(4)

The following statement is issued:

```
SELECT AVG(prod_price, prod_qty)
FROM products;
```

What happens when this statement is issued?

Mark for Review

(1) Points

Both the average price and the average quantity of the products are returned.

Only the average quantity of the products is returned.

The values in the PROD_PRICE column and the PROD_QTY column are averaged together.

An error occurs. (*)

Incorrect. Refer to Section 5

54. The AVG, SUM, VARIANCE, and STDDEV functions can be used with which of the following? Mark for Review

(1) Points

Only numeric data types (*)

Integers only

Any data type

All except numeric

Correct

55. The CUSTOMERS table contains these columns:

CUSTOMER_ID NUMBER(9)

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(30)

CREDIT_LIMIT NUMBER(7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

Mark for Review

(1) Points

AVG (*)

SUM

COUNT

STDDEV

Incorrect. Refer to Section 5

Section 5 Lesson 3

(Answer all questions in this section)

56. Evaluate this SELECT statement:

```
SELECT COUNT(*)
```

```
FROM employees
```

```
WHERE salary > 30000;
```

Which results will the query display?

Mark for Review

(1) Points

The number of employees that have a salary less than 30000.

The total of the SALARY column for all employees that have a salary greater than 30000.

The number of rows in the EMPLOYEES table that have a salary greater than 30000. (*)

The query generates an error and returns no results.

Correct

57. The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(7,2)

DEPARTMENT_ID NUMBER(9)

You need to display the number of employees whose salary is greater than \$50,000? Which SELECT would you use?

Mark for Review

(1) Points

```
SELECT * FROM employees  
WHERE salary > 50000;
```

```
SELECT * FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary < 50000;
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000;  
(*)
```

```
SELECT COUNT(*) FROM employees  
WHERE salary > 50000  
GROUP BY employee_id, last_name, first_name, salary, department_id;
```

Incorrect. Refer to Section 5

58. Evaluate this SQL statement:

```
SELECT COUNT (amount)  
FROM inventory;
```


What will occur when the statement is issued?

Mark for Review

(1) Points

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

Incorrect. Refer to Section 5

59. Which SELECT statement will calculate the number of rows in the PRODUCTS table? Mark for Review

(1) Points

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

Incorrect. Refer to Section 5

Section 6 Lesson 1

(Answer all questions in this section)

60. Evaluate this SELECT statement:

```
SELECT SUM(salary), department_id, manager_id  
FROM employees  
GROUP BY department_id, manager_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

Mark for Review

(1) Points

HAVING SUM(salary) > 100000 (*)

WHERE SUM(salary) > 100000

WHERE salary > 100000

HAVING salary > 100000

Incorrect. Refer to Section 6

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Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 1

(Answer all questions in this section)

61. Which statement about the GROUP BY clause is true? Mark for Review

(1) Points

To exclude rows before dividing them into groups using the GROUP BY clause, you should use a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

Correct

62. The PAYMENT table contains these columns:

PAYMENT_ID NUMBER(9) PK

PAYMENT_DATE DATE

CUSTOMER_ID NUMBER(9)

Which SELECT statement could you use to display the number of times each customer made a payment between January 1, 2003 and June 30, 2003 ?

Mark for Review

(1) Points

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
(*)
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT customer_id, COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003';
```

```
SELECT COUNT(payment_id)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '30-JUN-2003'
GROUP BY customer_id;
```

Incorrect. Refer to Section 6

63. Evaluate this SELECT statement:

```
SELECT COUNT(emp_id), mgr_id, dept_id  
FROM employee  
WHERE status = 'I'  
GROUP BY dept_id  
HAVING salary > 30000  
ORDER BY 2;
```

Why does this statement return a syntax error?

Mark for Review

(1) Points

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

Incorrect. Refer to Section 6

64. Evaluate this SELECT statement:

```
SELECT COUNT(employee_id), department_id  
FROM employees  
GROUP BY department_id;
```

You only want to include employees who earn more than 15000.

Which clause should you include in the SELECT statement?

Mark for Review

(1) Points

WHERE salary > 15000 (*)

HAVING salary > 15000

WHERE SUM(salary) > 15000

HAVING SUM(salary) > 15000

Incorrect. Refer to Section 6

65. The PLAYERS table contains these columns:

PLAYER_ID NUMBER PK

PLAYER_NAME VARCHAR2 (30)

TEAM_ID NUMBER

HIRE_DATE DATE

SALARY NUMBER (8,2)

Which two clauses represent valid uses of aggregate functions? (Choose three.)

Mark for Review

(1) Points

(Choose all correct answers)

ORDER BY AVG(salary) (*)

GROUP BY MAX(salary)

SELECT AVG(NVL(salary, 0)) (*)

HAVING MAX(salary) > 10000 (*)

WHERE hire_date > AVG(hire_date)

Incorrect. Refer to Section 6

66. The EMPLOYEES table contains these columns:

ID_NUMBER NUMBER Primary Key

NAME VARCHAR2 (30)

DEPARTMENT_ID NUMBER

SALARY NUMBER (7,2)

HIRE_DATE DATE

Evaluate this SQL statement:

```
SELECT id_number, name, hire_date, department_id, SUM(salary)
```

```
FROM employees
```

```
WHERE salary > 25000
```

```
GROUP BY department_id, id_number, name
```

```
ORDER BY hire_date;
```

Why will this statement cause an error?

Mark for Review

(1) Points

The HAVING clause is missing.

The WHERE clause contains a syntax error.

The SALARY column is NOT included in the GROUP BY clause.

The HIRE_DATE column is NOT included in the GROUP BY clause. (*)

Incorrect. Refer to Section 6

67. Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
HAVING AVG(salary) > 35000
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

Mark for Review

(1) Points

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

GROUP BY job_id, department_id

HAVING AVG(salary) > 35000 (*)

Correct

Section 6 Lesson 2

(Answer all questions in this section)

68. Which statement about subqueries is true? Mark for Review

(1) Points

Subqueries should be enclosed in double quotation marks.

Subqueries cannot contain group functions.

Subqueries are often used in a WHERE clause to return values for an unknown conditional value. (*)

Subqueries generally execute last, after the main or outer query executes.

Incorrect. Refer to Section 6

69. Which operator can be used with a multiple-row subquery? Mark for Review

(1) Points

IN (*)

<>

=

LIKE

Incorrect. Refer to Section 6

70. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5) Primary Key

NAME VARCHAR2 (25)

SUBJECT_ID NUMBER(5)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER (5) Primary Key

TEACHER_ID NUMBER (5)

START_DATE DATE

MAX_CAPACITY NUMBER (3)

All MAX_CAPACITY values are greater than 10. Which two SQL statements correctly use subqueries?
(Choose two.)

Mark for Review

(1) Points

(Choose all correct answers)

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE class_id = 45963);

(*)

SELECT *

FROM teachers

WHERE teacher_id = (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM teachers

WHERE teacher_id LIKE (SELECT teacher_id FROM class_assignments WHERE max_capacity > 0);

SELECT *

FROM class_assignments

WHERE max_capacity = (SELECT AVG(max_capacity) FROM class_assignments GROUP BY teacher_id);

Incorrect. Refer to Section 6

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 2

(Answer all questions in this section)

71. Using a subquery in which of the following clauses will return a syntax error? Mark for Review

(1) Points

WHERE

FROM

HAVING

You can use subqueries in all of the above clauses. (*)

Correct

72. You need to create a report to display the names of products with a cost value greater than the average cost of all products. Which SELECT statement should you use? Mark for Review

(1) Points

```
SELECT product_name  
FROM products  
WHERE cost > (SELECT AVG(cost) FROM product);
```

(*)

```
SELECT product_name  
FROM products  
WHERE cost > AVG(cost);
```

```
SELECT AVG(cost), product_name  
FROM products  
WHERE cost > AVG(cost)  
GROUP by product_name;
```

```
SELECT product_name  
FROM (SELECT AVG(cost) FROM product)  
WHERE cost > AVG(cost);
```


Incorrect. Refer to Section 6

Section 6 Lesson 3

(Answer all questions in this section)

73. If a single-row subquery returns a null value and uses the equality comparison operator, what will the outer query return? Mark for Review

(1) Points

no rows (*)

all the rows in the table

a null value

an error

Incorrect. Refer to Section 6

74. Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

Mark for Review

(1) Points

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

75. Which statement about the <> operator is true? Mark for Review

(1) Points

The <> operator is NOT a valid SQL operator.

The <> operator CANNOT be used in a single-row subquery.

The <> operator returns the same result as the ANY operator in a subquery.

The <> operator can be used when a single-row subquery returns only one row. (*)

Incorrect. Refer to Section 6

Section 6 Lesson 4

(Answer all questions in this section)

76. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
  (SELECT department_id
   FROM employees
   WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Mark for Review

(1) Points

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

Correct

77. Evaluate the structure of the EMPLOYEE and DEPART_HIST tables:

EMPLOYEE:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

MANAGER_ID NUMBER(9)

SALARY NUMBER(7,2)

DEPART_HIST:

EMPLOYEE_ID NUMBER(9)

OLD_DEPT_ID NUMBER(9)

NEW_DEPT_ID NUMBER(9)

CHANGE_DATE DATE

You want to generate a list of employees who are in department 10, but used to be in department 15.

Which query should you use?

Mark for Review

(1) Points

```
SELECT employee_id, last_name, first_name, department_id
FROM employee
```

```
WHERE (employee_id, department_id) IN  
  
(SELECT employee_id, new_dept_id  
  
FROM depart_hist  
  
WHERE old_dept_id = 15) AND new_dept_id = 10;  
  
(*)
```

```
SELECT employee_id, last_name, first_name, department_id  
  
FROM employee  
  
WHERE (employee_id) IN  
  
(SELECT employee_id  
  
FROM employee_hist  
  
WHERE old_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id  
  
FROM employee  
  
WHERE (employee_id, department_id) =  
  
(SELECT employee_id, new_dept_id  
  
FROM depart_hist  
  
WHERE new_dept_id = 15);
```

```
SELECT employee_id, last_name, first_name, department_id  
  
FROM employee
```

```
WHERE (employee_id, department_id) IN  
  
(SELECT employee_id, dept_id  
  
FROM employee  
  
WHERE old_dept_id = 15);
```

Incorrect. Refer to Section 6

78. Which of the following statements contains a comparison operator that is used to restrict rows based on a list of values returned from an inner query? Mark for Review

(1) Points

```
SELECT description  
  
FROM d_types  
  
WHERE code IN (SELECT type_code FROM d_songs);
```

```
SELECT description  
  
FROM d_types  
  
WHERE code = ANY (SELECT type_code FROM d_songs);
```

```
SELECT description  
  
FROM d_types
```

WHERE code <> ALL (SELECT type_code FROM d_songs);

All of the above. (*)

Incorrect. Refer to Section 6

79. Evaluate this SELECT statement:

SELECT customer_id, name

FROM customer

WHERE customer_id IN

(SELECT customer_id

FROM customer

WHERE state_id = 'GA' AND credit_limit > 500.00);

What would happen if the inner query returned null?

Mark for Review

(1) Points

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

80. Which statement about single-row and multiple-row subqueries is true? Mark for Review

(1) Points

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 6 Lesson 4

(Answer all questions in this section)

81. Which best describes a multiple-row subquery? Mark for Review

(1) Points

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

Correct

82. Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name  
FROM student  
WHERE major_id NOT IN  
(SELECT major_id  
FROM majors  
WHERE department_head_id = 30 AND title = 'ADJUNCT');
```

What would happen if the inner query returned a NULL value row?

Mark for Review

(1) Points

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Correct

83. Which of the following is a valid reason why the query below will not execute successfully?

```
SELECT employee_id, last_name, salary
```

```
FROM employees
```

```
WHERE department_id =
```

```
(SELECT department_id FROM employees WHERE last_name like '%u%')
```

Mark for Review

(1) Points

First subquery not enclosed in parenthesis

Single rather than multiple value operator used. (*)

Second subquery found on the right instead of the left side of the operator.

The greater than operator is not valid.

Incorrect. Refer to Section 6

84. Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name  
FROM customer  
WHERE area_code IN  
    (SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

Mark for Review

(1) Points

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

Incorrect. Refer to Section 6

85. What is wrong with the following query?

```
SELECT employee_id, last_name  
FROM employees  
WHERE salary =
```

(SELECT MIN(salary) FROM employees GROUP BY department_id);

Mark for Review

(1) Points

Single rows contain multiple values and a logical operator is used.

Subquery returns more than one row and single row comparison operator is used. (*)

Subquery references the wrong table in the WHERE clause.

Nothing, it will run without problems.

Incorrect. Refer to Section 6

86. You are looking for Executive information using a subquery. What will the following SQL statement display?

SELECT department_id, last_name, job_id

FROM employees

WHERE department_id IN

(SELECT department_id

FROM departments

WHERE department_name = 'Executive');

Mark for Review

(1) Points

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

Correct

Section 7 Lesson 1

(Answer all questions in this section)

87. The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
(SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
FROM students  
  
WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

Mark for Review

(1) Points

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

Incorrect. Refer to Section 7

88. You need to add a row to an existing table. Which DML statement should you use? Mark for Review

(1) Points

UPDATE

INSERT (*)

DELETE

CREATE

Correct

89. You have been instructed to add a new customer to the CUSTOMERS table. Because the new customer has not had a credit check, you should not add an amount to the CREDIT column.

The CUSTOMERS table contains these columns:

CUST_ID NUMBER(10)

COMPANY VARCHAR2(30)

CREDIT NUMBER(10)

POC VARCHAR2(30)

LOCATION VARCHAR2(30)

Which two INSERT statements will accomplish your objective?

Mark for Review

(1) Points

(Choose all correct answers)

```
INSERT INTO customers (cust_id, company, poc, location)
VALUES (200, 'InterCargo', 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (200, 'InterCargo', null, 'tflanders', 'samerica');
```

(*)

```
INSERT INTO customers
VALUES (cust_id, company, credit, poc, location) (200, 'InterCargo', 0, 'tflanders', 'samerica');
```

```
INSERT INTO customers
VALUES (200, InterCargo, 0, tflanders, samerica);
```

Incorrect. Refer to Section 7

90. Assume all the column names are correct. The following SQL statement will execute which of the following?

```
INSERT INTO departments (department_id, department_name, manager_id, location_id)
VALUES (70, 'Public Relations', 100, 1700);
```

Mark for Review

(1) Points

100 will be inserted into the department_id column

1700 will be inserted into the manager_id column

70 will be inserted into the department_id column (*)

'Public Relations' will be inserted into the manager_name column

Correct

Test: Mid Term Exam - Database Programming with SQL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 7 Lesson 2

(Answer all questions in this section)

91. One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMPLOYEE_ID NUMBER(10) PRIMARY KEY

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

DEPARTMENT_ID NUMBER(10)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

Mark for Review

(1) Points

```
UPDATE employees  
SET last_name = 'cooper'  
WHERE last_name = 'roper';  
(*)
```

```
UPDATE employees last_name = 'cooper'  
WHERE last_name = 'roper';
```

```
UPDATE employees  
SET last_name = 'roper'  
WHERE last_name = 'cooper';
```

```
UPDATE employees  
SET cooper = 'last_name'  
WHERE last_name = 'roper';
```

Correct

92. Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

Mark for Review

(1) Points

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Incorrect. Refer to Section 7

93. You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows? Mark for Review

(1) Points

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Incorrect. Refer to Section 7

94. One of your employees was recently married. Her employee ID is still 189, however, her last name is now Rockefeller. Which SQL statement will allow you to reflect this change? Mark for Review

(1) Points

INSERT INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

INSERT my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE INTO my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189;

UPDATE my_employees SET last_name = 'Rockefeller' WHERE employee_ID = 189; (*)

Incorrect. Refer to Section 7

95. Evaluate this statement: DELETE FROM customer; Which statement is true? Mark for Review

(1) Points

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

Incorrect. Refer to Section 7

96. Which two commands can be used to modify existing data in a database row? Mark for Review

(1) Points

(Choose all correct answers)

DELETE

MERGE (*)

SELECT

UPDATE (*)

Incorrect. Refer to Section 7

97. Examine the structures of the PRODUCTS and SUPPLIERS tables:

SUPPLIERS

SUPPLIER_ID NUMBER NOT NULL, Primary Key

SUPPLIER_NAME VARCHAR2 (25)

ADDRESS VARCHAR2 (30)

CITY VARCHAR2 (25)

REGION VARCHAR2 (10)

POSTAL_CODE VARCHAR2 (11)

PRODUCTS

PRODUCT_ID NUMBER NOT NULL, Primary Key

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER Foreign key to SUPPLIER_ID of the SUPPLIERS table

CATEGORY_ID NUMBER

QTY_PER_UNIT NUMBER

UNIT_PRICE NUMBER (7,2)

QTY_IN_STOCK NUMBER

QTY_ON_ORDER NUMBER

REORDER_LEVEL NUMBER

You want to delete any products supplied by the five suppliers located in Atlanta. Which script should you use?

Mark for Review

(1) Points

```
DELETE FROM products
WHERE supplier_id IN
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
(*)
```

```
DELETE FROM products
WHERE UPPER(city) = 'ATLANTA';
```

```
DELETE FROM products
WHERE supplier_id =
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ATLANTA');
```

```
DELETE FROM products
WHERE supplier_id <
(SELECT supplier_id
FROM suppliers
WHERE UPPER(city) = 'ALANTA');
```

Correct

98. When the WHERE clause is missing in a DELETE statement, what is the result? Mark for Review

(1) Points

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

Incorrect. Refer to Section 7

99. The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

Mark for Review

(1) Points

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

Incorrect. Refer to Section 7

100. The PLAYERS table contains these columns:

PLAYER_ID NUMBER NOT NULL

PLAYER_LNAME VARCHAR2(20) NOT NULL

PLAYER_FNAME VARCHAR2(10) NOT NULL

TEAM_ID NUMBER

SALARY NUMBER(9,2)

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

Mark for Review

(1) Points

UPDATE players (salary) SET salary = salary * 1.125;

UPDATE players SET salary = salary * .125 WHERE team_id = 5960;

UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)

UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;

Incorrect. Refer to Section 7

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S1L2

1.

You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
```

```
FROM dual;
```

Which value is returned by this command?

1

2

13 (*)

17

2.

Evaluate this SELECT statement:

```
SELECT LENGTH(email)
```

FROM employee;

What will this SELECT statement display?

The longest e-mail address in the EMPLOYEE table.

The email address of each employee in the EMPLOYEE table.

The number of characters for each value in the EMAIL column in the employees table. (*)

The maximum number of characters allowed in the EMAIL column.

3.

Which SQL function can be used to remove heading or trailing characters (or both) from a character string?

LPAD

CUT

NVL2

TRIM (*)

4.

Which functions can be used to manipulate character, number, and date column values?

CONCAT, RPAD, and TRIM (*)

UPPER, LOWER, and INITCAP

ROUND, TRUNC, and MOD

ROUND, TRUNC, and ADD_MONTHS

5.

You need to display the number of characters in each customer's last name. Which function should you use?

LENGTH (*)

LPAD

COUNT

SUBSTR

6.

Which SQL function is used to return the position where a specific character string begins within a larger character string?

CONCAT

INSTR (*)

LENGTH

SUBSTR

7.

You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use?

INSTR

TRUNC

SUBSTR (*)

CONCAT

8.

Evaluate this function: MOD (25, 2) Which value is returned?

1 (*)

2

25

0

9.

Which two functions can be used to manipulate number or date column values, but NOT character column values? (Choose two.)

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

10. You issue this SQL statement:

```
SELECT ROUND (1282.248, -2)
```

```
FROM dual;
```

What value does this statement produce?

1200

1282

1282.25

1300 (*)

S1L3

11.

You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue?

```
SELECT orderid, total
```

```
FROM orders
```

```
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'
```

```
ORDER BY total DESC;
```

```
SELECT orderid, total
```

```
FROM orders
```

```
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )
```

```
ORDER BY total;
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;  
(*)
```

```
SELECT orderid, total  
FROM orders  
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'  
ORDER BY total DESC;
```

12.

You need to display the number of months between today's date and each employee's hiredate. Which function should you use?

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN (*)

13.

Which of the following Date Functions will add calendar months to a date?

Months + Calendar (Month)

ADD_MONTHS (*)

MONTHS + Date

NEXT_MONTH

14.

Which function would you use to return the current database server date and time?

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

15.

The EMPLOYEE table contains these columns:

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

HIRE_DATE DATE

EVAL_MONTHS NUMBER(3)

Evaluate this SELECT statement:

SELECT hire_date + eval_months

FROM employee;

The values returned by this SELECT statement will be of which data type?

DATE (*)

NUMBER

DATETIME

INTEGER

S2 L1

16.

All Human Resources data is stored in a table named EMPLOYEES. You have been asked to create a report that displays each employee's name and salary. Each employee's salary must be displayed in the following format: \$000,000.00. Which function should you include in a SELECT statement to achieve the desired result?

TO_CHAR (*)

TO_DATE

TO_NUMBER

CHARTOROWID

17.

The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2 (25)

FIRST_NAME VARCHAR2 (25)

SALARY NUMBER(6)

You need to create a report to display the salaries of all employees. Which script should you use to display the salaries in format: "\$45,000.00"?

```
SELECT TO_CHAR(salary, '$999,999')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,990.99')  
FROM employees;
```

```
SELECT TO_NUM(salary, '$999,999.00')  
FROM employees;
```

```
SELECT TO_CHAR(salary, '$999,999.00')  
FROM employees; (*)
```

18.

Which statement concerning single row functions is true?

Single row functions can accept only one argument, but can return multiple values.

Single row functions cannot modify a data type.

Single row functions can be nested. (*)

Single row functions return one or more results per row.

19.

Which best describes the TO_CHAR function?

The TO_CHAR function can be used to specify meaningful column names in an SQL statement's result set.

The TO_CHAR function can be used to remove text from column data that will be returned by the database.

The TO_CHAR function can be used to display dates and numbers according to formatting conventions that are supported by Oracle. (*)

The TO_CHAR function can only be used on DATE columns.

20.

If you use the RR format when writing a query using the date 27-OCT-17 and the year is 2001, what year would be the result?

2001

1901

2017 (*)

1917

21.

Which functions allow you to perform explicit data type conversions?

ROUND, TRUNC, ADD_MONTHS

LENGTH, SUBSTR, LPAD, TRIM

TO_CHAR, TO_DATE, TO_NUMBER (*)

NVL, NVL2, NULLIF

S2L2

22.

When executed, which statement displays a zero if the TUITION_BALANCE value is zero and the HOUSING_BALANCE value is null?

```
SELECT NVL (tuition_balance + housing_balance, 0) "Balance Due"
FROM student_accounts; (*)
```

```
SELECT NVL(tuition_balance, 0), NVL (housing_balance), tuition_balance + housing_balance "Balance Due"
FROM student_accounts;
```

```
SELECT tuition_balance + housing_balance
FROM student_accounts;
```

```
SELECT TO_NUMBER(tuition_balance, 0), TO_NUMBER (housing_balance, 0), tuition_balance +
housing_balance "Balance Due"
FROM student_accounts;
```

23.

Which of the following General Functions will return the first non-null expression in the expression list?

NVL

NVL2

NULLIF

COALESCE (*)

24.

The PRODUCT table contains this column: PRICE NUMBER(7,2)

Evaluate this statement:

```
SELECT NVL(10 / price, '0')
```

```
FROM PRODUCT;
```

What would happen if the PRICE column contains null values?

The statement would fail because values cannot be divided by 0.

A value of 0 would be displayed. (*)

A value of 10 would be displayed.

The statement would fail because values cannot be divided by null.

S3 L2

25.

You need to create a report that lists all employees in the Sales department who do not earn \$25,000 per year. Which query should you issue to accomplish this task?

```
SELECT last_name, first_name, salary  
FROM employees  
WHERE salary > 25000 AND dept_id = 10;
```

```
SELECT last_name, first_name, salary  
FROM employees
```

WHERE salary = 25000 AND dept_id = 10;

SELECT last_name, first_name, salary

FROM employees

WHERE salary <= 25000 AND dept_id = 10;

SELECT last_name, first_name, salary

FROM employees

WHERE salary != 25000 AND dept_id = 10; (*)

26.

Evaluate this SQL statement:

SELECT e.employee_id, e.last_name, e.first_name, d.department_name

FROM employees e, departments d

WHERE e.department_id = d.department_id AND employees.department_id > 5000

ORDER BY 4;

Which clause contains a syntax error?

SELECT e.employee_id, e.last_name, e.first_name, d.department_name

FROM employees e, departments d

WHERE e.department_id = d.department_id

AND employees.department_id > 5000 (*)

ORDER BY 4;

27.

What happens when you create a Cartesian product?

All rows from one table are joined to all rows of another table (*)

The table is joined to itself, one column to the next column, exhausting all possibilities

The table is joined to another equal table

All rows that do not match in the WHERE clause are displayed

28.

What is produced when a join condition is not specified in a multiple-table query?

a self-join

an outer join

an equijoin

a Cartesian product (*)

29.

The PATIENTS and DOCTORS tables contain these columns:

PATIENTS

PATIENT_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

DOCTORS

DOCTOR_ID NUMBER(9)

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

You issue this statement:

SELECT patient_id, doctor_id

FROM patients, doctors;

Which result will this statement provide?

A report containing all possible combinations of the PATIENT_ID and DOCTOR_ID values (*)

A report containing each patient's id value and their doctor's id value

A report with NO duplicate PATIENT_ID or DOCTOR_ID values

A syntax error

30.

You have two tables named EMPLOYEES and SALES. You want to identify the sales representatives who have generated at least \$100,000 in revenue.

Which query should you issue?

```
SELECT e.fname, e.lname, s.sales
```

```
FROM employees e, sales s
```

```
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

```
SELECT e.fname, e.lname, s.sales
```

```
FROM employees e, sales s
```

```
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

(*)

```
SELECT e.fname, e.lname, s.sales  
FROM employees, sales  
WHERE e.emp_id = s.emp_id AND revenue >= 100000;
```

```
SELECT fname, lname, sales  
FROM employees e, sales s  
WHERE e.emp_id = s.emp_id AND revenue > 100000;
```

31-40?????

S 4 L4

41. You need to display all the rows from both the EMPLOYEE and EMPLOYEE_HIST tables. Which type of join would you use?

- ☐ a right outer join
- ☐ a left outer join
- ☐ a full outer join (*)
- ☐ an inner join

42. What should be included in a SELECT statement to return NULL values from all tables?

- ☐ natural joins
- ☐ left outer joins
- ☐ full outer joins (*)

- ☐ right outer joins

43. You need to join the EMPLOYEE_HIST and EMPLOYEE tables. The EMPLOYEE_HIST table will be the first table in the FROM clause. All the matched and unmatched rows in the EMPLOYEE table need to be displayed. Which type of join will you use?

- ☐ a cross join
- ☐ an inner join
- ☐ a left outer join
- ☐ a right outer join (*)

S 5 L1

44. Which statement about the GROUP BY clause is true?

- ☐ The first column listed in the GROUP BY clause is the most major grouping. (*)
- ☐ The last column listed in the GROUP BY clause is the most major grouping.
- ☐ The GROUP BY clause can contain an aggregate function.
- ☐ A GROUP BY clause cannot be used without an ORDER BY clause.

45. Evaluate this SELECT statement:

```
SELECT MIN(hire_date), dept_id  
FROM employee  
GROUP BY dept_id;
```

Which values are displayed?

- ☐ The earliest hire date in each department. (*)
- ☐ The the earliest hire date in the EMPLOYEE table.
- ☐ The latest hire date in the EMPLOYEE table.
- ☐ The hire dates in the EMPLOYEE table that contain NULL values.

46. What will the following SQL Statement do?

```
SELECT job_id, COUNT(*)  
FROM employees  
GROUP BY job_id;
```

- ☐ Displays all the employees and groups them by job.
- ☐ Displays each job id and the number of people assigned to that job id. (*)
- ☐ Displays only the number of job_ids.
- ☐ Displays all the jobs with as many people as there are jobs.

47. Group functions can be nested to a depth of

- ☐ three
- ☐ four
- ☐ two (*)
- ☐ Group functions cannot be nested.

S 5 L2

48. Which group function would you use to display the total of all salary values in the EMPLOYEE table?

- ☐ SUM (*)
- ☐ AVG

- o COUNT
- o MAX

49. Which group function would you use to display the lowest value in the SALES_AMOUNT column?

- o AVG
- o COUNT
- o MAX
- o MIN (*)

50. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

You need to determine the average payment amount made by each customer in January, February and March of 2003. Which SELECT statement should you use?

- o SELECT AVG(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' AND '31-MAR-2003'; (*)
- o SELECT AVG(payment_amount)
FROM payment;
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';
- o SELECT SUM(payment_amount)
FROM payment
WHERE payment_date BETWEEN '01-JAN-2003' and '31-MAR-2003';

```
o      SELECT AVG(payment_amount)
FROM payment
WHERE TO_CHAR(payment_date) IN (JAN, FEB, MAR);
S5 L2
```

51.

The TRUCKS table contains these columns:

TRUCKS

TYPE VARCHAR2(30)

YEAR DATE

MODEL VARCHAR2(20)

PRICE NUMBER(10)

Which SELECT statement will return the average price for the 4x4 model?

```
SELECT AVG (price) FROM trucks WHERE model = '4x4'; (*)
```

```
SELECT AVG (price) FROM trucks WHERE model IS '4x4';
```

```
SELECT AVG(price) FROM trucks WHERE model IS 4x4;
```

```
SELECT AVG(price), model FROM trucks WHERE model IS '4x4';
```


52.

The CUSTOMER table contains these columns:

CUSTOMER_ID NUMBER(9)

FNAME VARCHAR2(25)

LNAME VARCHAR2(30)

CREDIT_LIMIT NUMBER (7,2)

CATEGORY VARCHAR2(20)

You need to calculate the average credit limit for all the customers in each category. The average should be calculated based on all the rows in the table excluding any customers who have not yet been assigned a credit limit value. Which group function should you use to calculate this value?

AVG (*)

SUM

COUNT

STDDEV

53.

The EMPLOYEES table contains these columns:

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(20)

FIRST_NAME VARCHAR2(20)

SALARY NUMBER(9,2)

HIRE_DATE DATE

BONUS NUMBER(7,2)

COMM_PCT NUMBER(4,2)

Which three functions could be used with the HIRE_DATE, LAST_NAME, or SALARY columns? (Choose three.)

(Choose all correct answers)

MAX (*)

SUM

AVG

MIN (*)

COUNT (*)

54.

Which group function would you use to display the highest salary value in the EMPLOYEE table?

AVG

COUNT

MAX (*)

MIN

55.

Which group function would you use to display the average price of all products in the PRODUCTS table?

SUM

AVG (*)

COUNT

MAX

S5L3

56.

Which SELECT statement will calculate the number of rows in the PRODUCTS table?

SELECT COUNT(products);

SELECT COUNT FROM products;

SELECT COUNT (*) FROM products; (*)

SELECT ROWCOUNT FROM products;

57.

Examine the data from the LINE_ITEM table:

LINE_ITEM_ID	ORDER_ID	PRODUCT_ID	PRICE	DISCOUNT
890898	847589	848399	8.99	0.10

768385 862459 849869 5.60 0.05

867950 985490 945809 5.60

954039 439203 438925 5.25 0.15

543949 349302 453235 4.50

You query the LINE_ITEM table and a value of 5 is returned. Which SQL statement did you execute?

`SELECT COUNT(discount) FROM line_item;`

`SELECT COUNT(*) FROM line_item; (*)`

`SELECT SUM(discount) FROM line_item;`

`SELECT AVG(discount) FROM line_item;`

58.

Evaluate this SQL statement:

`SELECT COUNT (amount)`

`FROM inventory;`

What will occur when the statement is issued?

The statement will return the greatest value in the INVENTORY table.

The statement will return the total number of rows in the AMOUNT column.

The statement will replace all NULL values that exist in the AMOUNT column.

The statement will count the number of rows in the INVENTORY table where the AMOUNT column is not null. (*)

59.

Which statement about the COUNT function is true?

The COUNT function ignores duplicates by default.

The COUNT function always ignores null values by default. (*)

The COUNT function can be used to find the maximum value in each column.

The COUNT function can be used to determine the number of unique, non-null values in a column.

S6L1

60.

What is the correct order of clauses in a SELECT statement?

SELECT

FROM

WHERE

ORDER BY

HAVING

SELECT

FROM

HAVING

GROUP BY

WHERE

ORDER BY

SELECT

FROM

WHERE

GROUP BY

HAVING

ORDER BY

(*)

SELECT

FROM

WHERE

HAVING

ORDER BY

GROUP BY

61.

Evaluate this SELECT statement:

SELECT SUM(salary), dept_id, department_name

FROM employee

WHERE dept_id = 1

GROUP BY department;

Which clause of the SELECT statement contains a syntax error?

SELECT

FROM

WHERE

GROUP BY (*)

62.

Evaluate this SELECT statement:

```
SELECT SUM(salary), dept_id, mgr_id
```

```
FROM employee
```

```
GROUP BY dept_id, mgr_id;
```

Which SELECT statement clause allows you to restrict the rows returned, based on a group function?

```
HAVING SUM(salary) > 100000 (*)
```

```
WHERE SUM(salary) > 100000
```

WHERE salary > 100000

HAVING salary > 100000

63.

Evaluate this SELECT statement:

```
SELECT COUNT(emp_id), mgr_id, dept_id
```

```
FROM employee
```

```
WHERE status = 'I'
```

```
GROUP BY dept_id
```

```
HAVING salary > 30000
```

```
ORDER BY 2;
```

Why does this statement return a syntax error?

MGR_ID must be included in the GROUP BY clause. (*)

The HAVING clause must specify an aggregate function.

A single query cannot contain a WHERE clause and a HAVING clause.

The ORDER BY clause must specify a column name in the EMPLOYEE table.

64.

The PRODUCTS table contains these columns:

PROD_ID NUMBER(4)

PROD_NAME VARCHAR(20)

PROD_CAT VARCHAR2(15)

PROD_PRICE NUMBER(5)

PROD_QTY NUMBER(4)

You need to identify the minimum product price in each product category.

Which statement could you use to accomplish this task?

SELECT prod_cat, MIN (prod_price)

FROM products

GROUP BY prod_price;

SELECT prod_cat, MIN (prod_price)

FROM products

GROUP BY prod_cat;

(*)

SELECT MIN (prod_price), prod_cat

FROM products

GROUP BY MIN (prod_price), prod_cat;

```
SELECT prod_price, MIN (prod_cat)
FROM products
GROUP BY prod_cat;
```

65.

Evaluate this statement:

```
SELECT department_id, AVG(salary)
FROM employees
WHERE job_id <> 69879
GROUP BY job_id, department_id
HAVING AVG(salary) > 35000
ORDER BY department_id;
```

Which clauses restricts the result? Choose two.

(Choose all correct answers)

```
SELECT department_id, AVG(salary)
```

```
WHERE job_id <> 69879 (*)
```

```
GROUP BY job_id, department_id
```

HAVING AVG(salary) > 35000 (*)

66.

You want to write a report that returns the average salary of all employees in the company, sorted by departments. The EMPLOYEES table contains the following columns:

EMPLOYEES:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2(20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which SELECT statement will return the information that you require?

SELECT salary (AVG)

FROM employees

GROUP BY dept;

SELECT AVG (salary)

FROM employees

GROUP BY dept; (*)

SELECT AVG (salary)

FROM employees

BY dept;

SELECT AVG salary

FROM employees

BY dept;

67.

Which statement about the GROUP BY clause is true?

To exclude rows before dividing them into groups using the GROUP BY clause, you use should a WHERE clause. (*)

You can use a column alias in a GROUP BY clause.

By default, rows are not sorted when a GROUP BY clause is used.

You must use the HAVING clause with the GROUP BY clause.

S6L2

68.

Using a subquery in which clause will return a syntax error?

WHERE

FROM

HAVING

There are no places you cannot place subqueries. (*)

69.

Which operator can be used with subqueries that return only one row?

LIKE (*)

ANY

ALL

IN

70.

If you use the equality operator (=) with a subquery, how many values can the subquery return?

only 1 (*)

up to 2

up to 5

unlimited

71.

Examine the structures of the CUSTOMER and ORDER_HISTORY tables:

CUSTOMER

CUSTOMER_ID NUMBER(5)

NAME VARCHAR2(25)

CREDIT_LIMIT NUMBER(8,2)

OPEN_DATE DATE

ORDER_HISTORY

ORDER_ID NUMBER(5)

CUSTOMER_ID NUMBER(5)

ORDER_DATE DATE

TOTAL NUMBER(8,2)

Which of the following scenarios would require a subquery to return the desired results?

You need to display the date each customer account was opened.

You need to display each date that a customer placed an order.

You need to display all the orders that were placed on a certain date.

You need to display all the orders that were placed on the same day as order number 25950. (*)

72.

Which operator can be used with a multiple-row subquery?

IN (*)

<>

=

LIKE

S6 L3

73.

Examine the structure of the EMPLOYEE, DEPARTMENT, and ORDERS tables.

EMPLOYEE

EMPLOYEE_ID NUMBER(9)

LAST_NAME VARCHAR2(25)

FIRST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER(9)

DEPARTMENT

DEPARTMENT_ID NUMBER(9)

DEPARTMENT_NAME VARCHAR2(25)

CREATION_DATE DATE

ORDERS

ORDER_ID NUMBER(9)

EMPLOYEE_ID NUMBER(9)

DATE DATE

CUSTOMER_ID NUMBER(9)

You want to display all employees who had an order after the Sales department was established. Which of the following constructs would you use?

a group function

a single-row subquery (*)

the HAVING clause

a MERGE statement

Incorrect. Refer to Section 6

74.

Which best describes a single-row subquery?

a query that returns only one row from the inner SELECT statement (*)

a query that returns one or more rows from the inner SELECT statement

a query that returns only one column value from the inner SELECT statement

a query that returns one or more column values from the inner SELECT statement

75.

You need to produce a report that contains all employee-related information for those employees who have Brad Carter as a supervisor. However, you are not sure which supervisor ID belongs to Brad Carter. Which query should you issue to accomplish this task?

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
  (SELECT supervisor_id
```

```
    FROM employees
```

```
WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
(SELECT supervisor_id
```

```
FROM employees
```

```
WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM supervisors
```

```
WHERE supervisor_id =
```

```
(SELECT employee_id
```

```
FROM supervisors
```

```
WHERE last_name = 'Carter');
```

```
SELECT *
```

```
FROM employees
```

```
WHERE supervisor_id =
```

```
(SELECT employee_id
```

```
FROM employees
```

```
WHERE last_name = 'Carter'); (*)
```

S6 L4

76. Which best describes a multiple-row subquery?

A query that returns only one row from the inner SELECT statement

A query that returns one or more rows from the inner SELECT statement (*)

A query that returns only one column value from the inner SELECT statement

A query that returns one or more column values from the inner SELECT statement

77. You are looking for Executive information using a subquery. What will the following SQL statement display?

```
SELECT department_id, last_name, job_id
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM departments
     WHERE department_name = 'Executive');
```

The department ID, department name and last name for every employee in the Executive department.

The department ID, last name, department name for every Executive in the employees table.

The department ID, last name, job ID from departments for Executive employees.

The department ID, last name, job ID for every employee in the Executive department. (*)

78. Evaluate this SQL statement:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE salary > 30000 AND salary < 50000);
```

Which values will be displayed?

Only employees who earn more than \$30,000.

Only employees who earn less than \$50,000.

All employees who work in a department with employees who earn more than \$30,000 and more than \$50,000.

All employees who work in a department with employees who earn more than \$30,000, but less than \$50,000. (*)

79. Examine the data in the PAYMENT table:

PAYMENT_ID	CUSTOMER_ID	PAYMENT_DATE	PAYMENT_TYPE	PAYMENT_AMOUNT
86590586	8908090	10-JUN-03	BASIC	859.00
89453485	8549038	15-FEB-03	INTEREST	596.00
85490345	5489304	20-MAR-03	BASIC	568.00

This statement fails when executed:

```
SELECT customer_id, payment_type
```

```
FROM payment
```

```
WHERE payment_id =
```

```
(SELECT payment_id
```

```
FROM payment
```

```
WHERE payment_amount = 596.00 OR payment_date = '20-MAR-2003');
```

Which change could correct the problem?

Change the outer query WHERE clause to 'WHERE payment_id IN'. (*)

Remove the quotes surrounding the date value in the OR clause.

Remove the parentheses surrounding the nested SELECT statement.

Change the comparison operator to a single-row operator.

Incorrect. Refer to Section 6

80. Which operator or keyword cannot be used with a multiple-row subquery?

ALL

ANY

= (*)

>

81.

Which of the following best describes the meaning of the ANY operator?

Equal to any member in the list

Compare value to each value returned by the subquery (*)

Compare value to every value returned by the subquery

Equal to each value in the list

Incorrect. Refer to Section 6

82.

Which statement about single-row and multiple-row subqueries is true?

Multiple-row subqueries cannot be used with the LIKE operator. (*)

Single-row operators can be used with both single-row and multiple-row subqueries.

Multiple-row subqueries can be used with both single-row and multiple-row operators.

Multiple-row subqueries can only be used in SELECT statements.

83.

Evaluate this SELECT statement:

```
SELECT customer_id, name
```

```
FROM customer
```

```
WHERE customer_id IN
```

```
  (SELECT customer_id
```

```
    FROM customer
```

```
    WHERE state_id = 'GA' AND credit_limit > 500.00);
```

What would happen if the inner query returned null?

An error would be returned.

No rows would be returned by the outer query. (*)

All the rows in the table would be selected.

Only the rows with CUSTOMER_ID values equal to null would be selected.

Incorrect. Refer to Section 6

84.

Evaluate this SELECT statement:

```
SELECT student_id, last_name, first_name
```

```
FROM student
```

```
WHERE major_id NOT IN
```

```
  (SELECT major_id
```

```
    FROM majors
```

```
    WHERE department_head_id = 30 AND title = 'ADJUNCT');
```

What would happen if the inner query returned a NULL value row?

A syntax error would be returned.

No rows would be returned from the STUDENT table. (*)

All the rows in the STUDENT table would be displayed.

Only the rows with STUDENT_ID values equal to NULL would be displayed.

Incorrect. Refer to Section 6

85.

You need to create a SELECT statement that contains a multiple-row subquery, which comparison operator(s) can you use?

IN, ANY, and ALL (*)

LIKE

BETWEEN...AND...

=, <, and >

86.

Evaluate this SELECT statement that includes a subquery:

```
SELECT last_name, first_name  
FROM customer  
WHERE area_code IN  
    (SELECT area_code FROM sales WHERE salesperson_id = 20);
```

Which statement is true about the given subquery?

The outer query executes before the nested subquery.

The results of the inner query are returned to the outer query. (*)

An error occurs if the either the inner or outer queries do not return a value.

Both the inner and outer queries must return a value, or an error occurs.

S7L1

87.

The STUDENTS table contains these columns:

STU_ID NUMBER(9) NOT NULL

LAST_NAME VARCHAR2 (30) NOT NULL

FIRST_NAME VARCHAR2 (25) NOT NULL

DOB DATE

STU_TYPE_ID VARCHAR2(1) NOT NULL

ENROLL_DATE DATE

You create another table, named FT_STUDENTS, with an identical structure. You want to insert all full-time students, who have a STU_TYPE_ID value of "F", into the new table. You execute this INSERT statement:

```
INSERT INTO ft_students  
  
  (SELECT stu_id, last_name, first_name, dob, stu_type_id, enroll_date  
  
   FROM students  
  
   WHERE UPPER(stu_type_id) = 'F');
```

What is the result of executing this INSERT statement?

All full-time students are inserted into the FT_STUDENTS table. (*)

An error occurs because the FT_STUDENTS table already exists.

An error occurs because you CANNOT use a subquery in an INSERT statement.

An error occurs because the INSERT statement does NOT contain a VALUES clause.

88.

Using the INSERT statement, and assuming that a column can accept null values, how can you implicitly insert a null value in a column?

Use the NULL keyword.

Use the ON clause

Omit the column in the column list. (*)

It is not possible to implicitly insert a null value in a column.

89.

The PRODUCTS table contains these columns:

PRODUCT_ID NUMBER NOT NULL

PRODUCT_NAME VARCHAR2 (25)

SUPPLIER_ID NUMBER NOT NULL

LIST_PRICE NUMBER (7,2)

COST NUMBER (5,2)

QTY_IN_STOCK NUMBER(4)

LAST_ORDER_DT DATE NOT NULL DEFAULT SYSDATE

Which INSERT statement will execute successfully?

INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, 700); (*)


```
INSERT INTO products VALUES (2958, 'Cable', 8690, 7.09, 4.04, SYSDATE);
```

```
INSERT INTO products(product_id, product_name) VALUES (2958, 'Cable');
```

```
INSERT INTO products(product_id, product_name, supplier_id) VALUES (2958, 'Cable', 8690, SYSDATE);
```

Incorrect. Refer to Section 7

90.

You need to add a row to an existing table. Which DML statement should you use?

UPDATE

INSERT (*)

DELETE

CREATE

S7L2

91.

You need to update both the DEPARTMENT_ID and LOCATION_ID columns in the EMPLOYEE table using one UPDATE statement. Which clause should you include in the UPDATE statement to update multiple columns?

the USING clause

the ON clause

the WHERE clause

the SET clause (*)

92.

Examine the structures of the PLAYERS, MANAGERS, and TEAMS tables:

PLAYERS

PLAYER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (30)

FIRST_NAME VARCHAR2 (25)

TEAM_ID NUMBER

MGR_ID NUMBER

SIGNING_BONUS NUMBER(9,2)

SALARY NUMBER(9,2)

MANAGERS

MANAGER_ID NUMBER Primary Key

LAST_NAME VARCHAR2 (20)

FIRST_NAME VARCHAR2 (20)

TEAM_ID NUMBER

TEAMS

TEAM_ID NUMBER Primary Key

TEAM_NAME VARCHAR2 (20)

OWNER_LAST_NAME VARCHAR2 (20)

OWNER_FIRST_NAME VARCHAR2 (20)

Which situation would require a subquery to return the desired result?

To display the names each player on the Lions team

To display the maximum and minimum player salary for each team

To display the names of the managers for all the teams owned by a given owner (*)

To display each player, their manager, and their team name for all teams with a id value greater than 5000

Incorrect. Refer to Section 7

93.

What would happen if you issued a DELETE statement without a WHERE clause?

All the rows in the table would be deleted. (*)

An error message would be returned.

No rows would be deleted.

Only one row would be deleted.

94.

One of the sales representatives, Janet Roper, has informed you that she was recently married, and she has requested that you update her name in the employee database. Her new last name is Cooper. Janet

is the only person with the last name of Roper that is employed by the company. The EMPLOYEES table contains these columns and all data is stored in lowercase:

EMP_ID NUMBER(10) PRIMARY KEY

LNAME VARCHAR2(20)

FNAME VARCHAR2(20)

DEPT VARCHAR2 (20)

HIRE_DATE DATE

SALARY NUMBER(10)

Which UPDATE statement will accomplish your objective?

UPDATE employees

SET lname = 'cooper'

WHERE lname = 'roper';

(*)

UPDATE employees lname = 'cooper'

WHERE lname = 'roper';

UPDATE employees

SET lname = 'roper'

WHERE lname = 'cooper';

UPDATE employees

```
SET cooper = 'lname'
```

```
WHERE lname = 'roper';
```

95.

When the WHERE clause is missing in a DELETE statement, what is the result?

All rows are deleted from the table. (*)

The table is removed from the database.

An error message is displayed indicating incorrect syntax.

Nothing. The statement will not execute.

96.

The PLAYERS table contains these columns:

```
PLAYER_ID NUMBER NOT NULL
```

```
PLAYER_LNAME VARCHAR2(20) NOT NULL
```

```
PLAYER_FNAME VARCHAR2(10) NOT NULL
```

```
TEAM_ID NUMBER
```

```
SALARY NUMBER(9,2)
```

You need to increase the salary of each player for all players on the Tiger team by 12.5 percent. The TEAM_ID value for the Tiger team is 5960. Which statement should you use?

```
UPDATE players (salary) SET salary = salary * 1.125;
```

```
UPDATE players SET salary = salary * .125 WHERE team_id = 5960;
```

```
UPDATE players SET salary = salary * 1.125 WHERE team_id = 5960; (*)
```

```
UPDATE players (salary) VALUES(salary * 1.125) WHERE team_id = 5960;
```

97.

The TEACHERS and CLASS_ASSIGNMENTS tables contain these columns:

TEACHERS

TEACHER_ID NUMBER(5)

NAME VARCHAR2(25)

SUBJECT_ID NUMBER(5)

HIRE_DATE DATE

SALARY NUMBER(9,2)

CLASS_ASSIGNMENTS

CLASS_ID NUMBER(5)

TEACHER_ID NUMBER(5)

START_DATE DATE

MAX_CAPACITY NUMBER(3)

Which scenario would require a subquery to return the desired results?

You need to display the start date for each class taught by a given teacher.

You need to create a report to display the teachers who were hired more than five years ago.

You need to display the names of the teachers who teach classes that start within the next week.

You need to create a report to display the teachers who teach more classes than the average number of classes taught by each teacher. (*)

98.

Evaluate this statement: DELETE FROM customer; Which statement is true?

The statement deletes all the rows from the CUSTOMER table. (*)

The statement deletes the CUSTOMER column.

The statement deletes the first row in the CUSTOMERS table.

The statement removes the structure of the CUSTOMER table from the database.

99.

You need to update the expiration date of products manufactured before June 30th . In which clause of the UPDATE statement will you specify this condition?

the ON clause

the WHERE clause (*)

the SET clause

the USING clause

100.

You want to enter a new record into the CUSTOMERS table. Which two commands can be used to create new rows?

INSERT, CREATE

MERGE, CREATE

INSERT, MERGE (*)

INSERT, UPDATE

Test: Quiz: Case and Character Manipulation

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Case and Character Manipulation

(Answer all questions in this section)

1. Identify the output from the following SQL statement:

```
SELECT RPAD('SQL',6, '*') FROM DUAL
```

Mark for Review

(1) Points

*****SQL

***SQL

SQL*** (*)

SQL*****

Correct

2. Which of the following SQL statements would correctly return a song title identified in the database as "All These Years"? Mark for Review

(1) Points

WHERE title CONTAINS 'Years';

WHERE title LIKE LOWER('all these years');

WHERE title IN('All', 'These', 'Years');

WHERE title LIKE INITCAP('%all these years'); (*)

Incorrect. Refer to Section 1

3. Which character manipulation function always returns a numerical value? Mark for Review

(1) Points

TRIM

LPAD

LENGTH (*)

SUBSTR

Incorrect. Refer to Section 1

4. Which query would return a user password combining the ID of an employee and the first 4 characters of the last name? Mark for Review

(1) Points

```
SELECT CONCAT(employee_id,SUBSTR(last_name,4,1))  
AS "User Passwords"  
FROM employees
```

```
SELECT CONCAT (employee_id, INSTR(last_name,4,1))  
AS "User Passwords"  
FROM employees
```

```
SELECT CONCAT(employee_id, INSTR(last_name,1,4))  
AS "User Passwords"  
FROM employees
```

```
SELECT CONCAT(employee_id, SUBSTR(last_name,1,4))  
AS "User Passwords"  
FROM employees  
(*)
```

Incorrect. Refer to Section 1

5. Which query selects the first names of the DJ On Demand clients who have a first name beginning with "A"? Mark for Review

(1) Points

```
SELECT UPPER(first_name)  
FROM d_clients  
WHERE first_name LIKE %a%
```

```
SELECT UPPER(first_name)  
FROM d_clients
```

WHERE first_name LIKE 'a%'

```
SELECT UPPER(first_name)
FROM d_clients
WHERE first_name LIKE 'a%'
```

```
SELECT UPPER(first_name)
FROM d_clients
WHERE LOWER(first_name) LIKE 'a%'
(*)
```

Incorrect. Refer to Section 1

6. Single row functions may be used in _____, _____ and _____ clauses. (Choose two correct answers) Mark for Review

(1) Points

(Choose all correct answers)

SELECT, FROM, ALWAYS

FROM, SELECT, ORDERS

WHERE, DECODE, ORDER BY (*)

SELECT, WHERE, ORDER BY (*)

Incorrect. Refer to Section 1

7. Which of the following are types of SQL functions? (Choose two correct answers.) Mark for Review
(1) Points

(Choose all correct answers)

Multi-Row Functions (*)

Column-Row Functions

Single-Row Functions (*)

Many-to-Many Functions

Incorrect. Refer to Section 1

8. What does the following SQL SELECT statement return?

```
SELECT UPPER(SUBSTR('Database Programming', INSTR('Database Programming', 'P'), 20))  
FROM dual;
```

Mark for Review

(1) Points

Programming

PROGRAMMING (*)

Database

DATABASE

Incorrect. Refer to Section 1

9. Character functions accept character arguments and only return character values. True or False?

Mark for Review

(1) Points

True

False (*)

Correct

Test: Quiz: Number Functions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Number Functions

(Answer all questions in this section)

1. ROUND and TRUNC functions can be used with which of the following Datatypes? Mark for Review

(1) Points

Dates and numbers (*)

Dates and characters

Numbers and characters

None of the above

Incorrect. Refer to Section 1

2. The answer to the following script is 456. True or False?

```
SELECT TRUNC(ROUND(456.98))
```

```
FROM dual
```

Mark for Review

(1) Points

True

False (*)

Incorrect. Refer to Section 1

3. Which number function may be used to determine if a value is odd or even? Mark for Review

(1) Points

MOD (*)

TRUNC

ROUND

BINARY

Incorrect. Refer to Section 1

4. If hire_date has a value of '03-July-03', then what is the output from this code?

```
SELECT ROUND(hire_date, 'Year')
```

```
FROM employees;
```

Mark for Review

(1) Points

01-JAN-04 (*)

01-JAN-03

01-JUL-03

01-AUG-03

Incorrect. Refer to Section 1

5. What is the result of the following SQL Statement:

```
SELECT ROUND(45.923,-1)
```

```
FROM DUAL; Mark for Review
```

(1) Points

46

45.9

50 (*)

None of the above

Correct.

Test: Quiz: Date Functions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Date Functions

(Answer all questions in this section)

1. Which query would return a whole number if the sysdate is 26-MAY-04? Mark for Review

(1) Points

```
SELECT TRUNC(MONTHS_BETWEEN(SYSDATE, '19-MAR-79') / 12)
```

AS YEARS

FROM DUAL;

(*)

```
SELECT TRUNC(YEARS_BETWEEN(SYSDATE, '19-MAR-79') / 12)
```

AS YEARS

FROM DUAL;

```
SELECT MONTHS_BETWEEN(SYSDATE, '19-MAR-79') / 12
```

AS YEARS

FROM DUAL;

None of the above

Incorrect. Refer to Section 1

2. Round and Trunc can be used on Date datatypes. True or False? Mark for Review

(1) Points

True (*)

False

3. What is the result of the following query?

```
SELECT ADD_MONTHS ('11-JAN-94',6)
```

```
FROM dual;
```

Mark for Review

(1) Points

17-Jan-04

11-Jan-95

11-Jul-94 (*)

17-Jul-94

4. What is the result of the following query?

```
SELECT ADD_YEARS ('11-JAN-94',6)
```

```
FROM dual;
```

Mark for Review

(1) Points

This is not a valid SQL statement. (*)

11-Jul-95

11-Jan-00

11-Jul-00

5. What function would you use to return the highest date in a month? Mark for Review

(1) Points

FINAL_DAY

END_DAY

HIGHEST_DAY

LAST_DAY (*)

6. If hire_date has a value of '03-July-03', then what is the output from this code?

SELECT ROUND(hire_date, 'Year') FROM employees; Mark for Review

(1) Points

01-JAN-04 (*)

01-JAN-03

01-JUL-03

01-AUG-03

Test: Quiz: Conversion Functions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Conversion Functions

(Answer all questions in this section)

1. You need to display the HIRE_DATE values in this format:

25th of July 2002.

Which SELECT statement would you use?

Mark for Review

(1) Points

```
SELECT enroll_date(hire_date, 'DDspth "of" Month YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'ddth "of" Month YYYY')  
FROM employees;  
(*)
```

```
SELECT TO_CHAR(hire_date, 'DDTH "of" Month YYYY')  
FROM employees;
```

```
SELECT TO_CHAR(hire_date, 'DDspth 'of' Month RRRR')  
FROM employees;
```

Incorrect. Refer to Section 2

2. Which statement will return the salary of e.g. 6000 from the Employees table in the following format \$6000.00? Mark for Review

(1) Points

```
SELECT TO_CHAR(salary, '$99999.00') SALARY  
FROM employees  
(*)
```

```
SELECT TO_CHAR(salary, '99999.00') SALARY  
FROM employees
```

```
SELECT TO_CHAR(salary, '$99999') SALARY  
FROM employees
```

```
SELECT TO_CHAR(sal, '$99999.00') SALARY  
FROM employees
```

3. The following script will run successfully. True or False?

```
SELECT TO_CHAR(TO_DATE('25-DEC-04', 'dd-MON-yy'))
```

```
FROM dual
```

Mark for Review

(1) Points

True

False (*)

Correct

4. A table has the following definition:

```
EMPLOYEES(
```

```
  EMPLOYEE_ID NUMBER(6) NOT NULL,
```

```
  LAST_NAME VARCHAR2(10) NOT NULL,
```

```
  MANAGER_ID VARCHAR2(6))
```

and contains the following rows:

```
(1001, 'Bob Bevan', '200')
```

```
(200, 'Natacha Hansen', null)
```

Will the following query work:?

```
SELECT *
```

FROM emps

WHERE id = manager;

Mark for Review

(1) Points

No, because the WHERE-clause will not find any matching data

No, because the datatypes of ID and MANAGER are different.

Yes, Oracle will perform implicit datatype conversion. (*)

No. You will have to re-write the statement and perform explicit datatype conversion.

5. Which statement is true about SQL functions? Mark for Review

(1) Points

Functions can convert values or text to another data type.

Functions can round a number to a specified decimal place.

Functions can convert upper case characters to lower case characters.

a, b and c are true. (*)

None of the above statements are true.

Incorrect. Refer to Section 2

6. Sysdate is 12-MAY-2004.

You need to store the following date: 7-DEC-89

Which statement about the date format for this value is true? Mark for Review

(1) Points

Both the YY and RR date formats will interpret the year as 1989.

Both the YY and RR date formats will interpret the year as 2089.

The RR date format will interpret the year as 1989, and the YY date format will interpret the year as 2089. (*)

The RR date format will interpret the year as 2089, and the YY date format will interpret the year as 1989.

Incorrect. Refer to Section 2

Test: Quiz: Null Functions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Null Functions

(Answer all questions in this section)

1. With the following data in Employees (last_name, commission_pct, manager_id) what is the result of the following statement?

DATA:

King,null,null

Kochhar, null,100

Vargas, null, 124

Zlotkey,.2, 100

```
SELECT last_name,NVL2(commission_pct,manager_id, -1) comm
```

```
FROM employees ;
```

Mark for Review

(1) Points

King, -1

Kochhar, -1

Vargas, -1

Zlotkey, -100

Statement will fail.

King, -1

Kochhar, 100

Vargas, 124

Zlotkey, .2

King, -1

Kochhar, -1

Vargas, -1

Zlotkey, 100

(*)

2. If quantity is a number datatype, what is the result of this statement?

```
SELECT NVL(200/quantity, 'zero') FROM inventory;
```

Mark for Review

(1) Points

zero

ZERO

The statement fails (*)

Null

Incorrect. Refer to Section 2

3. Which function compares two expressions? Mark for Review

(1) Points

NVL

NULLIF (*)

NVL2

NULL

Correct

4. Consider the following data in the Employees table:

last_name	commission_pct	manager_id
-----------	----------------	------------

King	null	null
------	------	------

Kochhar	null	100
---------	------	-----

Vargas	null	124
--------	------	-----

Zlotkey	.2	100
---------	----	-----

What is the result of the following statement:

```
SELECT last_name, COALESCE(commission_pct, manager_id, -1) comm
```

```
FROM employees ;
```

Mark for Review

(1) Points

Statement will fail

King, -1

Kochhar, 100

Vargas, 124

Zlotkey, .2

(*)

King, -1

Kochhar, 100

Vargas, 124

Zlotkey, 100

King, null

Kochhar, 100

Vargas, 124

Zlotkey, .2

5. The following statement returns 0 (zero). True or False?

```
SELECT 121/NULL
```

```
FROM dual;
```

Mark for Review

(1) Points

True

False (*)

Incorrect. Refer to Section 2

Test: Quiz: Conditional Expressions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Conditional Expressions

(Answer all questions in this section)

1. Which of the following is a conditional expression used in SQL? Mark for Review

(1) Points

CASE (*)

DESCRIBE

WHERE

NULLIF

Incorrect. Refer to Section 2

2. For the given data from Employees (last_name, manager_id) what is the result of the following statement:

DATA:

King, null

Kochhar, 100

De Haan, 100

Hunold, 102

Ernst, 103

SELECT last_name,

DECODE(manager_id, 100, 'King', 'A N Other')

FROM employees

Mark for Review

(1) Points

King, Null

Kochhar, King

De Haan, King

Hunold, A N Other

Ernst, A N Other

King, A N Other

Kochhar, King

De Haan, King

Hunold, A N Other

Ernst, A N Other

(*)

Invalid statement.

King, A N Other

Kochhar, King

De Haan, King

Hunold, Kochhar

Ernst, De Haan

3. CASE and DECODE evaluate expressions in a similar way to IF-THEN-ELSE logic. However, DECODE is specific to Oracle syntax. True or False? Mark for Review

(1) Points

True (*)

False

Correct

4. Which statement will return a listing of last names, salaries and a rating of 'Low', 'Medium', 'Good' or 'Excellent' depending on the salary value? Mark for Review

(1) Points

```
SELECT last_name,salary,  
(CASE WHEN salary<5000 THEN 'Low'  
      WHEN salary<10000 THEN 'Medium'  
      WHEN salary<20000 THEN 'Good'  
      ELSE 'Excellent'  
END) qualified_salary  
FROM employees;  
(*)
```

```
SELECT last_name,salary,  
(CASE WHEN salary>5000 THEN 'Low'  
      WHEN salary>10000 THEN 'Medium'  
      WHEN salary>20000 THEN 'Good'  
      ELSE 'Excellent'  
END) qualified_salary  
FROM employees;
```

```
SELECT last_name,sal,  
(CASE WHEN sal<5000 THEN 'Low'  
      WHEN sal<10000 THEN 'Medium'  
      WHEN sal<20000 THEN 'Good'  
      ELSE 'Excellent'
```

```
END) qualified_salary
```

```
FROM employees;
```

```
SELECT last_name,salary,
```

```
(RATING WHEN salary<5000 THEN 'Low'
```

```
WHEN salary<10000 THEN 'Medium'
```

```
WHEN salary<20000 THEN 'Good'
```

```
ELSE 'Excellent'
```

```
END) qualified_salary
```

```
FROM employees;
```

Test: Quiz: Cartesian Product and the Join Operations

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Cartesian Product and the Join Operations

(Answer all questions in this section)

1. If table A has 10 rows and table B has 5 rows, how many rows will be returned if you perform an equi-join on those two tables? Mark for Review

(1) Points

50

It depends on the data found in the two tables. (*)

5

10

2. When must column names be prefixed by table names in JOIN syntax? Mark for Review

(1) Points

When more than two tables participate in the join.

Only when query speed and database performance is a concern.

When the same column name appears in more than one table of the query. (*)

Never.

Correct

3. Will the following statement work?


```
SELECT department_name, last_name  
FROM employees, departments  
WHERE department_id = department_id;
```

Mark for Review

(1) Points

No, Oracle will return a column ambiguously defined error. (*)

No, Oracle will not allow joins in the Where clause.

Yes, Oracle will resolve which department_id column comes from which table.

Yes, there are no syntax errors in the statement.

4. What is the result of a query that selects from two tables but includes no join condition? Mark for Review

(1) Points

A Cartesian product. (*)

A selection of matched rows from both tables.

A Syntax error.

A selection of rows from the first table only.

Incorrect. Refer to Section 3

5. Oracle proprietary JOINS can use the WHERE clause for conditions other than the join-condition.
True or False? Mark for Review

(1) Points

True (*)

False

6. If table A has 10 rows and table B has 5 rows, how many rows will be returned if you perform a cartesian join on those two tables? Mark for Review

(1) Points

5

50 (*)

10

15

Test: Quiz: Nonequijoins

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Nonequijoins

(Answer all questions in this section)

1. Which statement about joining tables with a non-equijoin is false? Mark for Review

(1) Points

A WHERE clause must specify a column in one table that is compared to a column in the second table (*)

The number of join conditions required is always one less than the number of tables being joined

The columns being joined must have compatible data types

None of the above

Correct

2. The following statement is an example of a nonequi-join.

```
SELECT e.last_name, e.salary, j.grade_level  
FROM employees e, job_grades j  
WHERE e.salary  
BETWEEN j.lowest_sal AND j.highest_sal;
```

True or False?

Mark for Review

(1) Points

True (*)

False

3. Which of the following operators is/are typically used in a nonequijoin? Mark for Review

(1) Points

NOT

OR

IN

>=, <=, BETWEEN ...AND (*)

Incorrect. Refer to Section 3

Test: Quiz: Outer Joins

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Outer Joins

(Answer all questions in this section)

1. To perform a valid outer join between DEPARTMENTS and EMPLOYEES to list departments without employees select the correct WHERE clause for the following select statement:

```
SELECT d.department_name, e.last_name
```

```
FROM employees e, departments d
```

```
WHERE
```

Mark for Review

(1) Points

```
e.department_id(+) = d.department_id(*)
```

`e.department_id(+) = d.department_id(+)`

`e.department_id = d.department_id(+)`

`e.department_id = d.department_id`

2. The ID column in the CLIENT table that corresponds to the CLIENT_ID column of the ORDER table contains null values for rows that need to be displayed. Which type of join should you use to display the data? Mark for Review

(1) Points

Equijoin

Self join

Outer join (*)

Nonequi-Join

Incorrect. Refer to Section 3

3. The following is a valid outer join statement:

`SELECT c.country_name, d.department_name`

FROM countries c, departments d

WHERE c.country_id (+) = d.country_id (+)

True or False?

Mark for Review

(1) Points

True

False (*)

4. Which symbol is used to perform an outer join? Mark for Review

(1) Points

*

||

(+) (*)

#

Correct

Test: Quiz: Self Joins

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Self Joins

(Answer all questions in this section)

1. Which of the following database design concepts is implemented with a self join? Mark for Review

(1) Points

Non-Transferability

Recursive Relationship (*)

Supertype

Arc

Correct

2. Which select statement will return the last name and hire data of an employee and his/ her manager for employees that started in the company before their managers? Mark for Review

(1) Points

```
SELECT w.last_name, w.hire_date, m.last_name, m.hire_date
FROM employees w , employees m
WHERE w.manager_id != m.employee_id AND w.hire_date < m.hire_date
```

```
SELECT w.last_name, w.hire_date, m.last_name, m.hire_date
FROM employees w , employees m
WHERE w.manager_id = m.employee_id AND w.hire_date > m.hire_date
```

```
SELECT w.last_name, w.hire_date, m.last_name, m.hire_date
FROM employees w , employees w
WHERE w.manager_id = w.employee_id AND w.hire_date < w.hire_date
```

```
SELECT w.last_name, w.hire_date, m.last_name, m.hire_date
FROM employees w , employees m
WHERE w.manager_id = m.employee_id AND w.hire_date < m.hire_date
```

(*)

3. Which SELECT statement implements a self join ? Mark for Review

(1) Points

```
SELECT e.employee_id, m.manager_id  
FROM employees e NATURAL JOIN employee m;
```

```
SELECT e.employee_id, m.manager_id  
FROM employees e, employees m  
WHERE m.employee_id = e.manager_id;  
(*)
```

```
SELECT e.employee_id, m.manager_id  
FROM employees e, manager m  
WHERE e.employee_id = m.manager_id;
```

```
SELECT e.employee_id, m.manager_id  
FROM employees e, departments m  
WHERE e.employee_id = m.manager_id;
```

Incorrect. Refer to Section 3

Test: Quiz: Cross joins and Natural Joins

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Cross joins and Natural joins

1. The _____ join is the ANSI-standard syntax used to generate a Cartesian product. Mark for Review

(1) Points

NATURAL

ALL

FULL

CROSS (*)

Incorrect. Refer to Section 4

2. The join column must be included in the select statement when you use the NATURAL JOIN clause.
True or False? Mark for Review

(1) Points

True

False (*)

3. What happens when you create a Cartesian product? Mark for Review

(1) Points

All rows from one table are joined to all rows of another table (*)

No rows are returned as you entered wrong join-criteria

The table is joined to itself, one column to the next column, exhausting all possibilities

All rows that do not match in the WHERE clause are displayed

Incorrect. Refer to Section 4

4. A NATURAL JOIN is based on: Mark for Review

(1) Points

Columns with the same name and datatype (*)

Columns with the same name

Columns with the same datatype and width

Tables with the same structure

Incorrect. Refer to Section 4

Test: Quiz: Join Clauses

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Join Clauses

(Answer all questions in this section)

1. The following is a valid SQL statement.

```
SELECT e.employee_id, e.last_name, d.location_id, department_id
```

FROM employees e JOIN departments d
USING (department_id);

True or False?

Mark for Review

(1) Points

True (*)

False

2. The keywords JOIN _____ should be used to join tables with the same column names but different datatypes. Mark for Review

(1) Points

NATURAL ON

ON

WHEN

USING (*)

Correct

3. You can do nonequi-joins with ANSI-Syntax. True or False? Mark for Review

(1) Points

True (*)

False

4. The primary advantage of using JOIN ON is: Mark for Review

(1) Points

The join happens automatically based on matching column names and data types

It will display rows that do not meet the join condition

It easily produces a Cartesian product between the tables in the statement

It permits columns that don't have matching data types to be joined

It permits columns with different names to be joined (*)

Correct

5. Table aliases MUST be used with columns referenced in the JOIN USING clause. True or False? Mark for Review

(1) Points

True

False (*)

Incorrect. Refer to Section 4

Test: Quiz: Inner versus Outer Joins

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Inner versus Outer Joins

(Answer all questions in this section)

1. Given the following descriptions of the employees and jobs tables, which of the following scripts will display each employee's possible minimum and maximum salaries based on their job title?

EMPLOYEES Table:

Name Null? Type

EMPLOYEE_ID NOT NULL NUMBER(6)

FIRST_NAME VARCHAR2 (20)

LAST_NAME NOT NULL VARCHAR2 (25)

EMAIL NOT NULL VARCHAR2 (25)

PHONE_NUMBER VARCHAR2 (20)

HIRE_DATE NOT NULL DATE

JOB_ID NOT NULL VARCHAR2 (10)

SALARY NUMBER (8,2)

COMMISSION_PCT NUMBER (2,2)

MANAGER_ID NUMBER (6)

DEPARTMENT_ID NUMBER (4)

JOBS Table:

Name Null? Type

JOB_ID NOT NULL VARCHAR2 (10)

JOB_TITLE NOT NULL VARCHAR2 (35)

MIN_SALARY NUMBER (6)

MAX_SALARY NUMBER (6)

Mark for Review

(1) Points

```
SELECT e.first_name, e.last_name, e.job_id, j.min_salary, j.max_salary
FROM employees e
NATURAL JOIN jobs j
USING (job_id);
```

```
SELECT first_name, last_name, job_id, min_salary, max_salary
FROM employees
NATURAL JOIN jobs;
(*)
```

```
SELECT e.first_name, e.last_name, e.job_id, j.min_salary, j.max_salary
FROM employees e
NATURAL JOIN jobs j;
```

```
SELECT first_name, last_name, job_id, min_salary, max_salary
FROM employees e
FULL JOIN jobs j (job_id);
```

```
SELECT e.first_name, e.last_name, e.job_id, j.min_salary, j.max_salary
FROM employees e
NATURAL JOIN jobs j ON (e.job_title = j.job_title);
```

Correct

2. For which of the following tables will all the values be retrieved even if there is no match in the other?

```
SELECT e.last_name, e.department_id, d.department_name
```

```
FROM employees e
```

```
LEFT OUTER JOIN departments d ON (e.department_id = d.department_id);
```

Mark for Review

(1) Points

employees (*)

department

both

Neither. the LEFT OUTER JOIN limits the value to the matching department id's.

Incorrect. Refer to Section 4

3. If you select rows from two tables (employees and departments) using an outer join, what will you get? Use the code below to arrive at your answer:

```
SELECT e.last_name, e.department_id, d.department_name  
FROM employees e  
LEFT OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```

Mark for Review

(1) Points

All employees that do not have a department_id assigned to them

All employees including those that do not have a department_id assigned to them (*)

No employees as the statement will fail

None of the above

Incorrect. Refer to Section 4

4. The following statement is an example of what kind of join?

```
SELECT car.vehicle_id, driver.name  
FROM car  
LEFT OUTER JOIN driver ON (driver_id);
```

Mark for Review

(1) Points

Inner Join

Outer Join (*)

Equijoin

Optimal Join

Incorrect. Refer to Section 4

5. What is another name for a simple join or an inner join? Mark for Review

(1) Points

Nonequijoin

Equijoin (*)

Self Join

Outer Join

Incorrect. Refer to Section 4

6. Which syntax would be used to retrieve all rows in both the EMPLOYEES and DEPARTMENTS tables, even when there is no match? Mark for Review

(1) Points

FULL OUTER JOIN (*)

LEFT OUTER JOIN AND RIGHT OUTER JOIN

FULL INNER JOIN

Use any equijoin syntax

Incorrect. Refer to Section 4

7. EMPLOYEES Table: Name Null? Type

EMPLOYEE_ID NOT NULL NUMBER(6)

FIRST_NAME VARCHAR2(20)

LAST_NAME NOT NULL VARCHAR2(25)

DEPARTMENT_ID NUMBER (4)

DEPARTMENTS Table: Name Null? Type

DEPARTMENT_ID NOT NULL NUMBER 4

DEPARTMENT_NAME NOT NULL VARCHAR2(30)

MANAGER_ID NUMBER (6)

A query is needed to display each department and its manager name from the above tables. However, not all departments have a manager but we want departments returned in all cases. Which of the following SQL: 1999 syntax scripts will accomplish the task?

Mark for Review

(1) Points

```
SELECT d.department_id,e.first_name,e.last_name
FROM employees e
LEFT OUTER JOIN departments d ON (e.employee_id = d.manager_id);
```

```
SELECT d.department_id,e.first_name,e.last_name
FROM employees e
LEFT OUTER JOIN departments d
WHERE (e.department_id = d.department_id);
```

```
SELECT d.department_id,e.first_name,e.last_name
FROM employees e
```

RIGHT OUTER JOIN departments d ON (e.employee_id = d.manager_id);

(*)

SELECT d.department_id, e.first_name, e.last_name

FROM employees e

FULL OUTER JOIN departments d ON (e.employee_id = d.manager_id);

SELECT d.department_id, e.first_name, e.last_name

FROM employees e, departments d

WHERE e.employee_id RIGHT OUTER JOIN d.manager_id;

Incorrect. Refer to Section 4

Test: Quiz: Group Functions

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Group Functions

(Answer all questions in this section)

1. What two group functions can be used with any datatype? Mark for Review

(1) Points

STDDEV, VARIANCE

SUM, AVG

COUNT, SUM

MIN, MAX (*)

Incorrect. Refer to Section 5

2. Given the following data in the employees table (employee_id, salary, commission_pct)

DATA: (143, 2600, null

144, 2500, null

149, 10500, .2

174, 11000, .3

176, 8600, .2

178, 7000, .15)

What is the result of the following statement:

```
SELECT SUM(commission_pct), COUNT(commission_pct)
FROM employees
WHERE employee_id IN( 143,144,149,174,176,178)
```

Mark for Review

(1) Points

SUM = 1.85 and COUNT = 6

SUM = 1.85 and COUNT = 4

SUM = .85 and COUNT = 6

SUM = .85 and COUNT = 4 (*)

3. The following statement will work even though it uses the same column with different GROUP functions:

```
SELECT AVG(salary), MAX(salary), MIN(salary), SUM(salary)
FROM employees;
```

True or False?

Mark for Review

(1) Points

True (*)

False

4. You can use GROUP functions in all clauses of a SELECT statement. True or False? Mark for Review

(1) Points

True

False (*)

5. What would the following SQL statement return?

```
SELECT MAX(hire_date)
```

```
FROM employees;
```

Mark for Review

(1) Points

The hire date of the longest serving employee

The hire date of the newest employee (*)

The hire dates of all employees in ascending order

The hire dates of all employees

Correct

6. Given the following data in the employees table (employee_id, salary, commission_pct)

DATA: (143, 2600, null

144, 2500, null

149, 10500, .2

174, 11000, .3

176, 8600, .2

178, 7000, .15)

What is the result of the following statement:

```
SELECT AVG(commission_pct)
```

```
FROM employees
```

```
WHERE employee_id IN (143, 144, 149, 174, 176, 178)
```

Mark for Review

(1) Points

This statement is invalid

0.2125 (*)

1.2125

0.0425

Test: Quiz: Count, Distinct, NVL

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Count, Distinct, NVL

(Answer all questions in this section)

1. Using your existing knowledge of the employees table, would the following two statements produce the same result?

```
SELECT COUNT(*)
```

```
FROM employees;
```

```
SELECT COUNT(commission_pct)
```

FROM employees;

Mark for Review

(1) Points

The second statement is invalid

The first statement is invalid

Yes

No (*)

2. To include null values in the calculations of a group function, you must: Mark for Review

(1) Points

Precede the group function name with NULL

Count the number of null values in that column using COUNT

Convert the null to a value using the NVL() function (*)

Group functions can never use null values

Correct

3. What would the following SQL statement return?

```
SELECT COUNT(DISTINCT salary)
```

```
FROM employees;
```

Mark for Review

(1) Points

The number of unique salaries in the employees table (*)

The total amount of salaries in the employees table

The total number of rows in the employees table

A listing of all unique salaries in the employees table

4. What would the following SQL statement return?

```
SELECT COUNT(first_name)
```

```
FROM employees;
```

Mark for Review

(1) Points

A listing of all non-null first names in the employees table

The total number of non-null first names in the employees table (*)

The total number of rows in the employees table

A listing of all unique first names in the employees table

Incorrect. Refer to Section 5

Test: Quiz: Group By and Having Clauses

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Group By and Having Clauses

(Answer all questions in this section)

1. How would you alter the following query to list only employees where more than one employee exists with the same last_name:

```
SELECT last_name, COUNT(employee_id)
```

```
FROM EMPLOYEES
```


GROUP BY last_name;

Mark for Review

(1) Points

```
SELECT last_name, COUNT(employee_id)
FROM EMPLOYEES
WHERE COUNT(*) > 1
GROUP BY last_name
```

```
SELECT last_name, COUNT(last_name)
FROM EMPLOYEES
GROUP BY last_name
HAVING COUNT(last_name) > 1;
(*)
```

```
SELECT last_name, COUNT(last_name)
FROM EMPLOYEES
GROUP BY last_name
EXISTS COUNT(last_name) > 1;
```

```
SELECT employee_id, DISTINCT(last_name)
```

FROM EMPLOYEES

GROUP BY last_name

HAVING last_name > 1;

2. Which of the following SQL statements could display the number of people with the same last name: Mark for Review

(1) Points

SELECT first_name, last_name, COUNT(employee_id)

FROM EMPLOYEES

GROUP BY last_name;

SELECT employee_id, COUNT(last_name)

FROM EMPLOYEES

GROUP BY last_name;

SELECT last_name, COUNT(last_name)

FROM EMPLOYEES

GROUP BY last_name;

(*)

```
SELECT employee_id, DISTINCT(last_name)
FROM EMPLOYEES
GROUP BY last_name;
```

Incorrect. Refer to Section 5

3. Is the following statement correct:

```
SELECT first_name, last_name, salary, department_id,
COUNT(employee_id)
FROM employees
WHERE department_id = 50
GROUP BY last_name, first_name, department_id;
```

Mark for Review

(1) Points

Yes

No, because you cannot have a WHERE-clause when you use group functions.

No, because the statement is missing salary in the GROUP BY clause (*)

Yes, because Oracle will correct any mistakes in the statement itself

4. Read the following SELECT statement. Choose the column or columns that must be included in the GROUP_BY clause.

```
SELECT COUNT(last_name), grade, gender
```

```
FROM STUDENTS
```

```
GROUP_BY ?????;
```

Mark for Review

(1) Points

last_name

last_name, grade

grade, gender (*)

last_name, gender

Correct

5. Is the following statement correct?

```
SELECT department_id, AVG(salary)
```

```
FROM employees;
```

Mark for Review

(1) Points

No, because a GROUP BY department_id clause is needed (*)

No, because the SELECT clause cannot contain both individual columns and group functions

No, because the AVG function cannot be used on the salary column

Yes

Incorrect. Refer to Section 5

6. The following is a valid statement:

```
SELECT MAX(AVG(salary))  
FROM employees  
GROUP BY department_id;
```

True or False?

Mark for Review

(1) Points

True (*)

False

Test: Quiz: Subqueries

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Subqueries

(Answer all questions in this section)

1. What will the following statement return:

```
SELECT last_name, salary
FROM employees
WHERE salary < (SELECT salary
                FROM employees
                WHERE employee_id = 103)
```

Mark for Review

(1) Points

A list of last_names and salaries of employees that makes more than employee 103

A list of last_names and salaries of employees that makes less than employee 103 (*)

A list of first_names and salaries of employees making less than employee 103

Nothing. It is an invalid statement.

2. Which of the following statements is a true guideline for using subqueries? Mark for Review

(1) Points

Do not enclose the subquery in parentheses.

Place the subquery on the left side of the comparison condition.

The outer and inner queries can reference than one table. They can get data from different tables. (*)

Only one WHERE clause can be used for a SELECT statement, and if specified, it must be the outer query.

Correct

3. What will the following statement return:

```
SELECT employee_id, last_name  
FROM employees  
WHERE salary =  
    (SELECT MIN(salary)  
    FROM employees  
    GROUP BY department_id);
```

Mark for Review

(1) Points

Nothing. It is an invalid statement. (*)

A list of last_names and salaries of employees

A list of first_names and salaries of employees in Department 50

A list of last_names and salaries of employees grouped by department_id.

4. Subqueries can only be placed in the WHERE clause. True or False? Mark for Review

(1) Points

True

False (*)

Test: Quiz: Single-Row Subqueries

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Single-Row Subqueries

(Answer all questions in this section)

1. Single row subqueries may not include this operator: Mark for Review

(1) Points

ALL (*)

=

<>

>

Incorrect. Refer to Section 6

2. Subqueries are limited to four per SQL transaction. True or False? Mark for Review

(1) Points

True

False (*)

Incorrect. Refer to Section 6

3. In a non-correlated subquery, the outer query always executes prior to the inner query's execution.
True or False? Mark for Review

(1) Points

True

False (*)

Correct

4. The result of this statement will be:

SELECT last_name, job_id, salary, department_id

```
FROM employees
WHERE job_id =
(SELECT job_id
FROM employees
WHERE employee_id = 141) AND department_id =
(SELECT department_id
FROM departments
WHERE location_id = 1500)
```

Mark for Review

(1) Points

All employees from Location 1500 will be displayed

An error since you can't get data from two tables in the same subquery

All employees with the department id of 141

Only the employees whose job id matches employee 141 and who work in location 1500 (*)

Correct

5. If the subquery returns no rows will the outer query return any values? Mark for Review

(1) Points

No, because you are not allowed to not return any rows from a subquery

Yes. It will just run and ignore the subquery

No, because the subquery will be treated like a null value. (*)

Yes, Oracle will find the nearest value and fix rewrite your statement implicitly when you run it

Test: Quiz: Multiple-Row Subqueries

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Multiple-Row Subqueries

(Answer all questions in this section)

1. Group functions, such as HAVING and GROUP BY, can be used in multiple-row subqueries. True or False? Mark for Review

(1) Points

True (*)

False

Correct

2. When a multiple-row subquery uses the NOT IN (<>ALL) operator, if one of the values returned by the inner query is a null value, the entire query returns: Mark for Review

(1) Points

A list of Nulls

All rows that were selected by the inner query including the null value(s)

All rows, minus the null value(s), that were selected by the inner query

no rows returned (*)

Incorrect. Refer to Section 6

3. The salary column of the f_staffs table contains the following values:

4000

5050

6000

11000

23000

Which of the following statements will return the last_name and first_name of those employees who earn more than 5000.

Mark for Review

(1) Points

```
SELECT last_name, first_name
FROM f_staffs
WHERE salary = (SELECT salary FROM f_staffs WHERE salary > 5000);
```

```
SELECT last_name, first_name
FROM f_staffs
WHERE salary = (SELECT salary FROM f_staffs WHERE salary < 5000);
```

```
SELECT last_name, first_name
FROM f_staffs
WHERE salary IN (SELECT salary FROM f_staffs WHERE salary > 5000);
(*)
```

```
SELECT last_name, first_name
FROM f_staffs
WHERE salary IN (SELECT last_name, first_name FROM f_staffs WHERE salary < 5000);
```

Correct

4. In a subquery the ALL operator compares a value to every value returned by the inner query. True or False? Mark for Review

(1) Points

True (*)

False

Incorrect. Refer to Section 6

5. Group functions can be used in subqueries even though they may return many rows. True or False? Mark for Review

(1) Points

True (*)

False

Incorrect. Refer to Section 6

6. The SQL multiple-row subquery extends the capability of the single-row syntax through the use of what three comparison operators? Mark for Review

(1) Points

IN, ANY and EQUAL

IN, ANY and ALL (*)

IN, ANY and EVERY

IN, ALL and EVERY

Correct

7. There can be more than one subquery returning information to the outer query. True or False? Mark for Review

(1) Points

True (*)

False

Correct

8. Multiple-row subqueries must have NOT, IN or ANY in the WHERE clause of the inner query. True or False? Mark for Review

(1) Points

True

False (*)

Correct

Test: Quiz: Insert Statement

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Insert Statement

(Answer all questions in this section)

1. When inserting a new row the null keyword can be included in the values list for any null column.
True or False? Mark for Review

(1) Points

True (*)

False

Correct

2. Insert statements can be combined with subqueries to create more than one row per statement.
True or False? Mark for Review

(1) Points

True (*)

False

3. If the employees table have 7 rows how many rows are inserted into the copy_emps table with the following statement:

```
INSERT INTO copy_emps (employee_id, first_name, last_name, salary, department_id)
SELECT employee_id, first_name, last_name, salary, department_id
FROM employees
```

Mark for Review

(1) Points

No rows, as you cannot use subqueries in an insert statement.

7 rows, as there is no WHERE-clause on the subquery. (*)

No rows, as the select statement is invalid.

10 rows will be created.

4. What is the quickest way to use today's date when you are creating a new row? Mark for Review

(1) Points

Simply write today's date in the format of 'dd-mon-rr'.

Simply use the keyword DATE in the insert statement.

Use the SYSDATE function. (*)

Use the TODAYS_DATE function.

5. Which of the following statements will add a new customer to the customers table in the Global Fast Foods database? Mark for Review

(1) Points

INSERT IN customers (id, first_name, last_name, address, city, state, zip, phone_number);

INSERT INTO customers (id, first_name, last_name, address, city, state, zip, phone_number)
VALUES ("145", 'Katie', 'Hernandez', '92 Chico Way', 'Los Angeles', 'CA', "98008", "8586667641");

INSERT INTO customers (id, first_name, last_name, address, city, state, zip, phone_number)
VALUES (145, 'Katie', 'Hernandez', '92 Chico Way', 'Los Angeles', 'CA', 98008, 8586667641);

(*)

INSERT INTO customers (id 145, first_name 'Katie', last_name 'Hernandez', address '92 Chico Way',
city 'Los Angeles', state 'CA', zip 98008, phone_number 8586667641);

Correct

6. To return a table summary on the customers table, which of the following is correct? Mark for Review

(1) Points

SHOW customers, or SEE customers

DISTINCT customers, or DIST customers

DESCRIBE customers, or DESC customers (*)

DEFINE customers, or DEF customers

Incorrect. Refer to Section 7

7. Is it possible to insert more than one row at a time using an INSERT statement with a VALUES clause? Mark for Review

(1) Points

No, you can only create one row at a time when using the VALUES clause. (*)

Yes, you can just list as many rows as you want, just remember to separate the rows with commas.

No, there is no such thing as INSERT VALUES.

8. When inserting rows into a table all columns must be given values. True or False? Mark for Review

(1) Points

True

False (*)

9. DML is an acronym that stands for: Mark for Review

(1) Points

Debit Markup Language

Don't Manipulate Language

Data Markup Language

Data Manipulation Language (*)

Incorrect. Refer to Section 7

Test: Quiz: Updating Column Values and Deleting Rows

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Updating Column Values and Deleting Rows

(Answer all questions in this section)

1. Assuming there are no Foreign Keys on the EMPLOYEES table, if the following subquery returns one row, how many rows will be deleted from the EMPLOYEES table?

```
DELETE FROM employees
```

```
WHERE department_id =
```

```
(SELECT department_id
```

```
FROM departments
```

```
WHERE department_name LIKE '%Public%');
```

Mark for Review

(1) Points

No rows will be deleted.

One row will be deleted, as the subquery only returns one row.

All the rows in the EMPLOYEES table with department_ids matching the department_id returned by the subquery. (*)

All rows in the EMPLOYEES table will be deleted, regardless of their department_id.

2. How many rows will be deleted from the employees table with the following statement?

```
DELETE FROM employees
```

```
WHERE last_name = 'king';
```

Mark for Review

(1) Points

All the rows in the employees table will be deleted.

No rows will be deleted, as no employees match the WHERE-clause. (*)

One will be deleted, as there exists one employee called King.

All rows with last_name = 'King' will be deleted.

3. Using your knowledge of the employees table, what would be the result of the following statement:

```
DELETE FROM employees;
```

Mark for Review
(1) Points

Nothing, no data will be changed.

All rows in the employees table will be deleted if there are no constraints on the table. (*)

The first row in the employees table will be deleted.

Deletes employee number 100.

4. Is the following statement valid, i.e. is it allowed to update rows in one table, based on a subquery from another table?

```
UPDATE copy_emp
SET department_id = (SELECT department_id
                    FROM employees
                    WHERE employee_id = 100)
WHERE job_id = (SELECT job_id
                FROM employees
                WHERE employee_id = 200);
```

Mark for Review

(1) Points

Yes, this is a perfectly valid statement. (*)

The statement will fail, because the subqueries are returning data from different rows

No, this will not work

No, this statement will return an error.

5. Which of the following statements best describes what will happen to the student table in this SQL statement?

```
UPDATE students
```

```
SET lunch_number =
```

```
(SELECT lunch_numer
```

```
FROM students
```

```
WHERE student_id = 17)
```

```
WHERE student_id = 19;
```

Mark for Review

(1) Points

The statement updates the student_table by replacing student id 19's lunch number with student id 17's lunch number. (*)

Inserts a new row into the students table.

Does nothing, the as you cannot use subqueries in update statements.

Deletes student 17's lunch_number and inserts a new value from student 19.

Correct

6. To change an existing row in a table, you can use the UPDATE and INSERT statements. True or False?

Mark for Review

(1) Points

True

False (*)

Correct

Test: Quiz: Default Values and the Merge Statement

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Default Values and the Merge Statement

(Answer all questions in this section)

1. The MERGE function combines the: Mark for Review

(1) Points

CREATE and UPDATE commands

INSERT and UPDATE commands (*)

ALTER and UPDATE commands

all of the above

Incorrect. Refer to Section 7

2. The DEFAULT keyword can be used in the following statements:

Mark for Review

(1) Points

INSERT and UPDATE (*)

INSERT and DELETE

DELETE and UPDATE

All of the above

3. If a default value was set for a null column, Oracle sets the column to the default value. However, if no default value was set when the column was created, Oracle inserts an empty space. True or False?

Mark for Review

(1) Points

True

False (*)

Correct

4. Which statement below will not insert a row of data onto a table? Mark for Review

(1) Points

```
INSERT INTO student_table (id, lname, fname, lunch_num)
VALUES (143354, 'Roberts', 'Cameron', 6543);
```

```
INSERT INTO student_table
VALUES (143354, 'Roberts', 'Cameron', 6543);
```

```
INSERT INTO student_table (id, lname, fname, lunch_num)
VALUES (143352, 'Roberts', 'Cameron', DEFAULT);
```

```
INSERT INTO (id, lname, fname, lunch_num)
VALUES (143354, 'Roberts', 'Cameron', 6543);
```

(*)

Incorrect. Refer to Section 7

5. The MERGE statement can be used to update rows in one table based on values in another table and if the update fails, then the rows will automatically be inserted instead. True or False? Mark for Review

(1) Points

True (*)

False

6. In developing the Employees table, you create a column called hire_date. You assign the hire_date column a DATE datatype with a DEFAULT value of 0 (zero). A user can come back later and enter the correct hire_date. This is _____. Mark for Review

(1) Points

A great idea. When a new employee record is entered, if no hire_date is specified, the 0 (zero) will be automatically specified.

A great idea. When new employee records are entered, they can be added faster by allowing the 0's (zeroes) to be automatically specified.

Both a and b are correct.

A bad idea. The default value must match the DATE datatype of the column. (*)

Incorrect. Refer to Section 7

Section 1 Lesson 1

(Answer all questions in this section)

1. You need to return a portion of each employee's last name, beginning with the first character up to the fifth character. Which character function should you use? Mark for Review

(1) Points

INSTR

TRUNC

SUBSTR (*)

CONCAT

Incorrect. Refer to Section 1

2. What will the following SQL statement display?

```
SELECT last_name, LPAD(salary, 15, '$') SALARY  
FROM employees;
```

Mark for Review

(1) Points

The last name of employees that have a salary that includes a \$ in the value, size of 15 and the column labeled SALARY.

The last name and the format of the salary limited to 15 digits to the left of the decimal and the column labeled SALARY.

The last name and salary for all employees with the format of the salary 15 characters long, left-padded with the \$ and the column labeled SALARY. (*)

The query will result in an error: "ORA-00923: FROM keyword not found where expected."

Incorrect. Refer to Section 1

3. Which SQL function can be used to remove heading or trailing characters (or both) from a character string? Mark for Review

(1) Points

LPAD

CUT

NVL2

TRIM (*)

Incorrect. Refer to Section 1

4. Evaluate this SELECT statement:

```
SELECT LENGTH(email)
FROM employees;
```

What will this SELECT statement display?

Mark for Review

(1) Points

The longest e-mail address in the EMPLOYEES table.

The email address of each employee in the EMPLOYEES table.

The number of characters for each value in the EMAIL column in the EMPLOYEES table. (*)

The maximum number of characters allowed in the EMAIL column.

Correct

5. You issue this SQL statement:

```
SELECT INSTR('organizational sales', 'al')
FROM dual;
```

Which value is returned by this command?

Mark for Review

(1) Points

2

13 (*)

17

Incorrect. Refer to Section 1

6. You query the database with this SQL statement:

```
SELECT LOWER(SUBSTR(CONCAT(last_name,first_name)),1,5) "ID"  
FROM employee;
```

In which order are the functions evaluated?

Mark for Review

(1) Points

LOWER, SUBSTR, CONCAT

LOWER, CONCAT, SUBSTR

SUBSTR, CONCAT, LOWER

CONCAT, SUBSTR, LOWER (*)

Incorrect. Refer to Section 1

7. The STYLES table contains this data:

STYLE_ID	STYLE_NAME	CATEGORY	COST
895840	SANDAL	85940	12.00
968950	SANDAL	85909	10.00
869506	SANDAL	89690	15.00
809090	LOAFER	89098	10.00
890890	LOAFER	89789	14.00
857689	HEEL	85940	11.00

758960 SANDAL 86979 12.00

You query the database and return the value 79. Which script did you use?

Mark for Review

(1) Points

```
SELECT INSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT INSTR(category, -2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, 2,2)
FROM styles
WHERE style_id = 895840;
```

```
SELECT SUBSTR(category, -2,2)
FROM styles
WHERE style_id = 758960;
(*)
```

Incorrect. Refer to Section 1

Section 1 Lesson 2

(Answer all questions in this section)

8. You issue this SQL statement:

```
SELECT TRUNC(751.367,-1)
FROM dual;
```

Which value does this statement display?

Mark for Review

(1) Points

700

750 (*)

751

751.3

Correct

9. Which script displays '01-MAY-04' when the HIRE_DATE value is '20-MAY-04'? Mark for Review

(1) Points

```
SELECT TRUNC(hire_date, 'MONTH')  
FROM employees;  
(*)
```

```
SELECT ROUND(hire_date, 'MONTH')  
FROM employees;
```

```
SELECT ROUND(hire_date, 'MON')  
FROM employees;
```

```
SELECT TRUNC(hire_date, 'MI')  
FROM employees;
```

Incorrect. Refer to Section 1 Lesson 3

10. Which two functions can be used to manipulate number or date column values, but NOT character

column values? (Choose two.) Mark for Review

(1) Points

(Choose all correct answers)

RPAD

TRUNC (*)

ROUND (*)

INSTR

CONCAT

Incorrect. Refer to Section 1

Page 1 of 10

11. Which of the following SQL statements will correctly display the last name and the number of weeks employed for all employees in department 90? Mark for Review

(1) Points

```
SELECT last_name, (SYSDATE-hire_date)/7 AS WEEKS  
FROM employees  
WHERE department_id = 90;  
(*)
```

```
SELECT last name, (SYSDATE-hire_date)/7 DISPLAY WEEKS  
FROM employees  
WHERE department id = 90;
```

```
SELECT last_name, # of WEEKS  
FROM employees  
WHERE department_id = 90;
```

```
SELECT last_name, (SYSDATE-hire_date)AS WEEK  
FROM employees  
WHERE department_id = 90;
```

Incorrect. Refer to Section 1

12. You need to display the number of months between today's date and each employee's hiredate. Which function should you use? Mark for Review
(1) Points

ROUND

BETWEEN

ADD_MONTHS

MONTHS_BETWEEN(*)

Incorrect. Refer to Section 1

13. You want to create a report that displays all orders and their amounts that were placed during the month of January. You want the orders with the highest amounts to appear first. Which query should you issue? Mark for Review
(1) Points

```
SELECT orderid, total  
FROM orders  
WHERE order_date LIKE '01-jan-02' AND '31-jan-02'  
ORDER BY total DESC;
```

```
SELECT orderid, total
```

```
FROM orders
WHERE order_date IN ( 01-jan-02 , 31-jan-02 )
ORDER BY total;
```

```
SELECT orderid, total
FROM orders
WHERE order_date BETWEEN '01-jan-02' AND '31-jan-02'
ORDER BY total DESC;
(*)
```

```
SELECT orderid, total
FROM orders
WHERE order_date BETWEEN '31-jan-02' AND '01-jan-02'
ORDER BY total DESC;
```

Incorrect. Refer to Section 1

14. You need to subtract three months from the current date. Which function should you use? Mark for Review
(1) Points

ROUND

TO_DATE

ADD_MONTHS (*)

MONTHS_BETWEEN

Incorrect. Refer to Section 1

15. Which SELECT statement will return a numeric value? Mark for Review
(1) Points

```
SELECT SYSDATE + 600 / 24
```