Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

1. 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

2. 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

3. 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

4. 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

5. 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

6. 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

7. 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

8. 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;
```

Correct

9. 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

10. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

11. 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

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

(1) Points

1 (*)

2

25

0

Correct

13. 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

Section 2

14. 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

15. 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

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.

Correct

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"?
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

18. The PRODUCT table contains this column: PRICE NUMBER(7,2)
Evaluate this statement:
SELECT NVL(10 / price, 4)
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 4.

A value of 4 would be displayed. (*)

A value of 0 would be displayed.

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

Incorrect. Refer to Section 2

19. 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), tutition_balance + housing_balance "Balance Due"
FROM student_accounts;

Correct

20. 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

Page 2 of 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 3

21. 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

22. 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

23. 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

24. 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
FROM employees e, sales s
WHERE e.employee_id = s.employee_id AND revenue > 100000;
```

Correct

25. 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

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. 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

28. 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 3

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. (*)

Correct

Section 4

30. The primary advantages of using JOIN ON is: (Select two) Mark for Review
(1) Points

(Choose all correct answers)

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

Page 3 of 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 4

31. 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

32. 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 employees table.

A Cartesian product between the two tables. (*)

A cross referenced result omitting similar fields from the two tables.

Incorrect. Refer to Section 4

33. 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

34. 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

35. 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

36. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HIST 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

37. You need to join the EMPLOYEE_HIST and EMPLOYEES tables. The EMPLOYEE_HIST 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

38. 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

39. Which aggregate function can be used on a column of the DATE data type? Mark for Review
(1) Points

AVG

MAX (*)

STDDEV

SUM

Correct

40. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 5

41. 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 IS '4x4';
```

Correct

42. 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

43. Which group function would you use to display the total of all salary values in the EMPLOYEES table? Mark for Review
(1) Points

SUM (*)

AVG

COUNT

MAX

Correct

44. 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

45. 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

46. 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

47. 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;
```

Correct

48. 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.

Correct

49. 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.

Incorrect. Refer to Section 5

50. 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 (*)

Correct

SQL mid term simister 2 part1

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

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

Correct

2. 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

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

Correct

4. 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

5. 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

6. 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

7. 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

8. 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

9. 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

10. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

11. 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

12. 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

13. 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

Incorrect. Refer to Section 1

Section 2

14. 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;

Correct

15. 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

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.

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. 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

(*)

Incorrect. Refer to Section 2

19. You need to replace null values in the DEPTARTMENT_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

20. 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),
tutition_balance + housing_balance "Balance Due"
FROM student_accounts;
```

Incorrect. Refer to Section 2

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 3

21. 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;
```

Correct

22. You have been asked to create a report that lists all corporate customers and all orders that they have placed. The customers should be listed alphabetically beginning with the letter 'A', and their corresponding order totals should be sorted from the highest amount to the lowest amount.
Which of the following statements should you issue? Mark for Review
(1) Points

```
    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY amount DESC, companyname;


    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount DESC;
(*)


    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount;


    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname ASC, amount ASC;
```

Correct

23. 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;
```

Incorrect. Refer to Section 3

24. 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

Correct

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

Incorrect. Refer to Section 3

26. 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

27. 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

28. 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

29. 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

SQL mid term simister 2 part1

Section 4

30. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 4

31. You need to join all the rows in the EMPLOYEES 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

32. 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

33. 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

34. 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

35. You need to join the EMPLOYEE_HIST and EMPLOYEES tables. The EMPLOYEE_HIST 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 (*)

Incorrect. Refer to Section 4

36. 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

Correct

37. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HIST 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

38. 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

39. Which group function would you use to display the highest salary value in the EMPLOYEES table? Mark for Review
(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

40. 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

Page 4 of 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 5

41. 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);
```

Incorrect. Refer to Section 5

42. 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

43. Which group function would you use to display the total of all salary values in the EMPLOYEES table? Mark for Review
(1) Points

SUM (*)

AVG

COUNT

MAX

Incorrect. Refer to Section 5

44. 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

45. 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

46. 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 IS '4x4';
```

Incorrect. Refer to Section 5

47. 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

48. 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.

Incorrect. Refer to Section 5

49. 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 (*)

Correct

50. 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.

Incorrect. Refer to Section 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

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

Correct

2. 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

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

Correct

4. 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

5. 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

6. 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

7. 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

8. 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

9. 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

10. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

11. 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

12. 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

13. 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

Incorrect. Refer to Section 1

Section 2

14. 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;

Correct

15. 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

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.

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. 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

(*)

Incorrect. Refer to Section 2

19. You need to replace null values in the DEPTARTMENT_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

20. 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), tutition_balance + housing_balance "Balance Due"
FROM student_accounts;

Incorrect. Refer to Section 2

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 3

21. 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;

Correct

22. You have been asked to create a report that lists all corporate customers and all orders that they have placed. The customers should be listed alphabetically

beginning with the letter 'A', and their corresponding order totals should be sorted from the highest amount to the lowest amount.
Which of the following statements should you issue? Mark for Review
(1) Points

```
    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY amount DESC, companyname;
```

```
    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount DESC;
```
(*)

```
    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount;
```

```
    SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname ASC, amount ASC;
```

Correct

23. 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;
```

Incorrect. Refer to Section 3

24. 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

Correct

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

Incorrect. Refer to Section 3

26. 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

27. 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

28. 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

29. 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

Section 4

30. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 4

31. You need to join all the rows in the EMPLOYEES 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

32. 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

33. 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

34. 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

35. You need to join the EMPLOYEE_HIST and EMPLOYEES tables. The EMPLOYEE_HIST 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 (*)

Incorrect. Refer to Section 4

36. 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

Correct

37. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HIST 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

38. 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

39. Which group function would you use to display the highest salary value in the EMPLOYEES table? Mark for Review
(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

40. 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

Page 4 of 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 5

41. 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);

Incorrect. Refer to Section 5

42. 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

43. Which group function would you use to display the total of all salary values in the EMPLOYEES table? Mark for Review
(1) Points

SUM (*)

AVG

COUNT

MAX

Incorrect. Refer to Section 5

44. 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

45. 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

46. 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 IS '4x4';
```

Incorrect. Refer to Section 5

47. 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

48. 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.

Incorrect. Refer to Section 5

49. 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 (*)

Correct

50. 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.

Incorrect. Refer to Section 5

Page 5 of 5
Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

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

Correct

2. 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

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

Correct

4. 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

5. 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

6. 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

7. 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

8. 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

9. 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

10. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

11. 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

12. 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

13. 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

Incorrect. Refer to Section 1

Section 2

14. 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;

Correct

15. 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

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.

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. 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

(*)

Incorrect. Refer to Section 2

19. You need to replace null values in the DEPTARTMENT_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

20. 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), tutition_balance + housing_balance "Balance Due"
FROM student_accounts;

Incorrect. Refer to Section 2

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 3

21. 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;
```

Correct

22. You have been asked to create a report that lists all corporate customers and all orders that they have placed. The customers should be listed alphabetically beginning with the letter 'A', and their corresponding order totals should be sorted from the highest amount to the lowest amount.

Which of the following statements should you issue? Mark for Review
(1) Points

SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY amount DESC, companyname;

SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount DESC;
(*)

SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount;

SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname ASC, amount ASC;

Correct

23. 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;
```

Incorrect. Refer to Section 3

24. 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

Correct

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

Incorrect. Refer to Section 3

26. 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

27. 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

28. 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

29. 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

Section 4

30. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 4

31. You need to join all the rows in the EMPLOYEES 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

32. 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

33. 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

34. 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

35. You need to join the EMPLOYEE_HIST and EMPLOYEES tables. The EMPLOYEE_HIST 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 (*)

Incorrect. Refer to Section 4

36. 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

Correct

37. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HIST 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

38. 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

39. Which group function would you use to display the highest salary value in the EMPLOYEES table? Mark for Review
(1) Points

AVG

COUNT

MAX (*)

MIN

Correct

40. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 5

41. 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);
```

Incorrect. Refer to Section 5

42. 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

43. Which group function would you use to display the total of all salary values in the EMPLOYEES table? Mark for Review
(1) Points

SUM (*)

AVG

COUNT

MAX

Incorrect. Refer to Section 5

44. 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

45. 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

46. 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 IS '4x4';
```

Incorrect. Refer to Section 5

47. 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

48. 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.

Incorrect. Refer to Section 5

49. 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 (*)

Correct

50. 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.

Incorrect. Refer to Section 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

1. 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

2. Which function would you use to return the current database server date and time? Mark for Review
(1) Points

DATE

SYSDATE (*)

DATETIME

CURRENTDATE

Correct

3. 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

4. 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

5. 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

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 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

8. 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

9. 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

10. 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

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 1

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

(1) Points

1 (*)

2

25

0

Correct

12. 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

13. 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

Section 2

14. 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

15. You need to replace null values in the DEPTARTMENT_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

16. 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

17. 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

18. 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

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;

Correct

20. 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

Page 2 of 5

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 3

21. 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

22. 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

23. 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

24. 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

25. 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
FROM employees e, sales s
WHERE e.employee_id = s.employee_id AND revenue > 100000;
```

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. You have been asked to create a report that lists all corporate customers and all orders that they have placed. The customers should be listed alphabetically beginning with the letter 'A', and their corresponding order totals should be sorted from the highest amount to the lowest amount.
Which of the following statements should you issue? Mark for Review
(1) Points

```
SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY amount DESC, companyname;
```

```
SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount DESC;
```
(*)

```
SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname, amount;
```

```
SELECT c.custid, c.companyname, o.orderdate, o. custid, o.amount
FROM customers c, orders o
WHERE c.custid = o.custid
ORDER BY companyname ASC, amount ASC;
```

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

Section 4

30. You need to display all the rows from both the EMPLOYEES and EMPLOYEE_HIST 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

Page 3 of 5
Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 4

31. 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

Correct

32. You need to join the EMPLOYEE_HIST and EMPLOYEES tables. The EMPLOYEE_HIST 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

33. 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

34. 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

35. 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

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

37. 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 employees table.

A Cartesian product between the two tables. (*)

A cross referenced result omitting similar fields from the two tables.

Correct

Section 5

38. 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

39. 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;
```

Correct

40. 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.

Correct

Test: Mid Term Exam Semester 2 - Part I

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

Part I of the Semester 2 Mid Term Exam covers Sections 1-5 of Database Programming with SQL.

Section 5

41. 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

42. 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

43. 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

44. 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

45. 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

46. 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

47. 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

48. 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

49. 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

50. 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

Page 5 of 5

88%

SQL mid term simister 2 part1