Oracle

1Z0-061 Exam

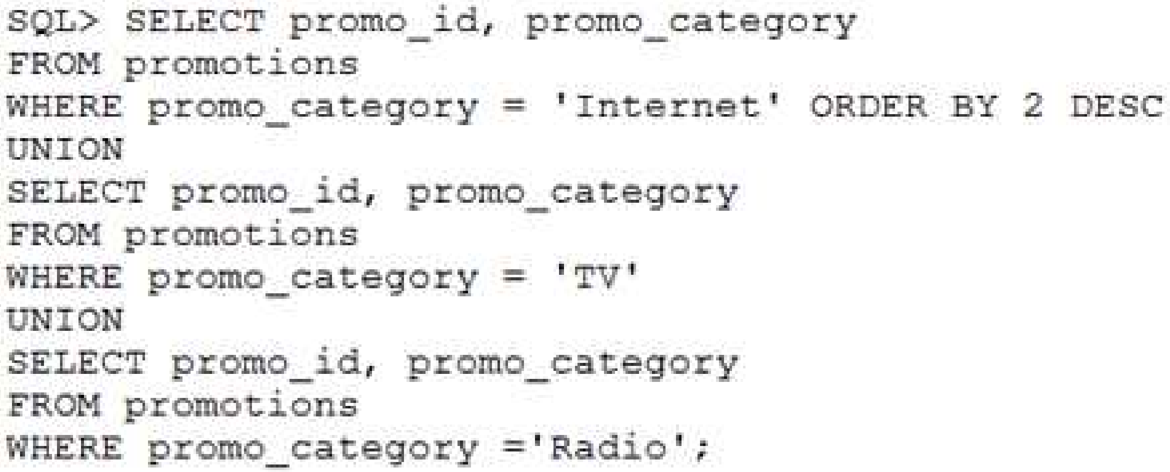
Oracle Database 12c: SQL Fundamentals Exam

Questions & Answers
Demo

Version: 9.0

Question: 1

Evaluate the following SQL statement:



```
SQL> SELECT promo_id, promo_category
FROM promotions
WHERE promo_category = 'Internet' ORDER BY 2 DESC
UNION
SELECT promo_id, promo_category
FROM promotions
WHERE promo_category = 'TV'
UNION
SELECT promo_id, promo_category
FROM promotions
WHERE promo_category ='Radio';
```

Which statement is true regarding the outcome of the above query?

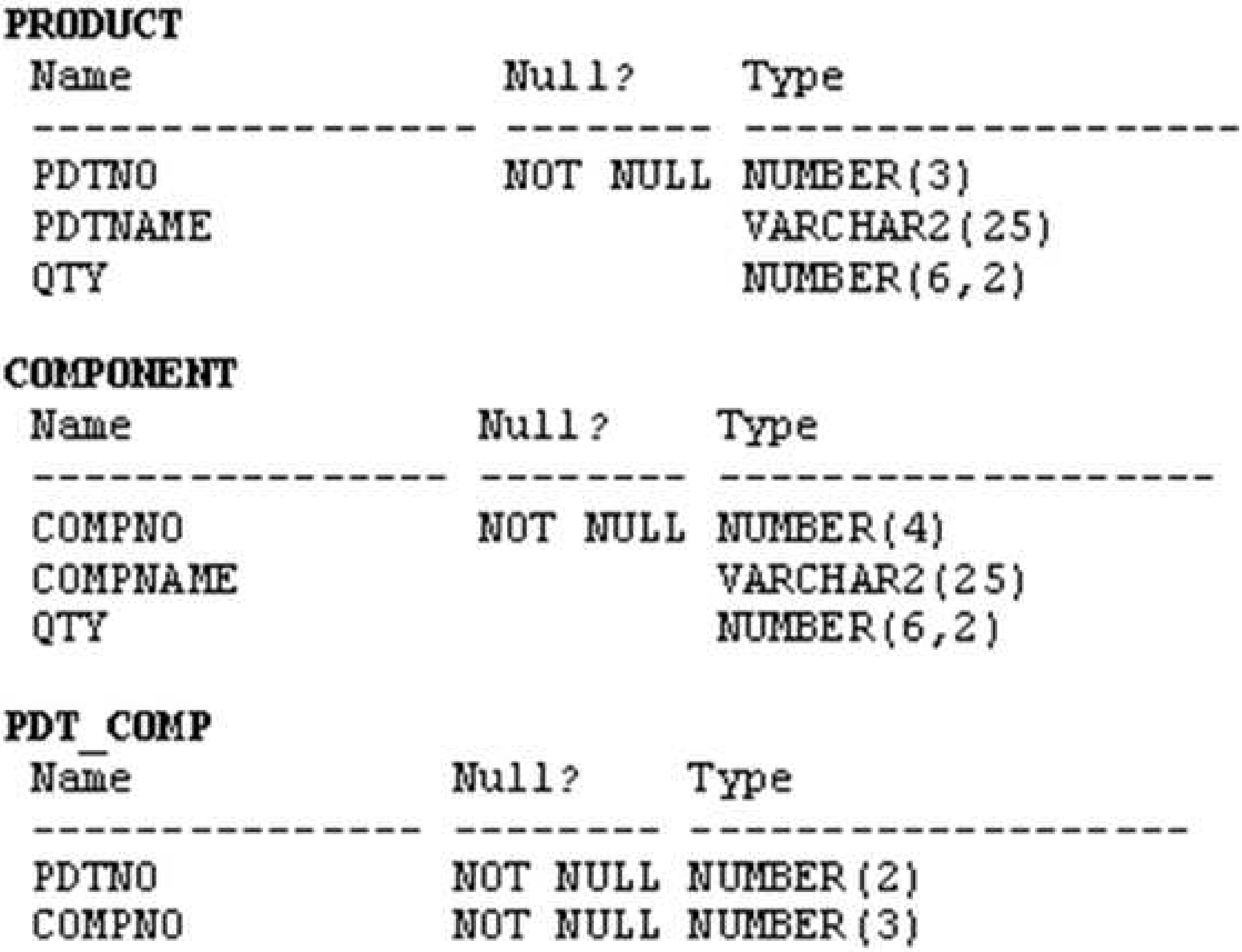
A. It executes successfully and displays rows in the descending order of PROMO_CATEGORY.
B. It produces an error because positional notation cannot be used in the order by clause with set operators.
C. It executes successfully but ignores the order by clause because it is not located at the end of the compound statement.
D. It produces an error because the order by clause should appear only at the end of a compound query-that is, with the last select statement.

Answer: D

Question: 2

View the Exhibit and examine the structure of the product, component, and PDT_COMP tables.
In product table, PDTNO is the primary key.
In component table, COMPNO is the primary key.
In PDT_COMP table, <PDTNO, COMPNO) is the primary key, PDTNO is the foreign key referencing PDTNO in product table and COMPNO is the foreign key referencing the COMPNO in component table.
You want to generate a report listing the product names and their corresponding component names, if the component names and product names exist.
Evaluate the following query:
SQL>SELECT pdtno, pdtname, compno, compname
FROM product _______________ pdt_comp

USING (pdtno) _____________ component USING (compno)
WHERE compname IS NOT NULL;
Which combination of joins used in the blanks in the above query gives the correct output?



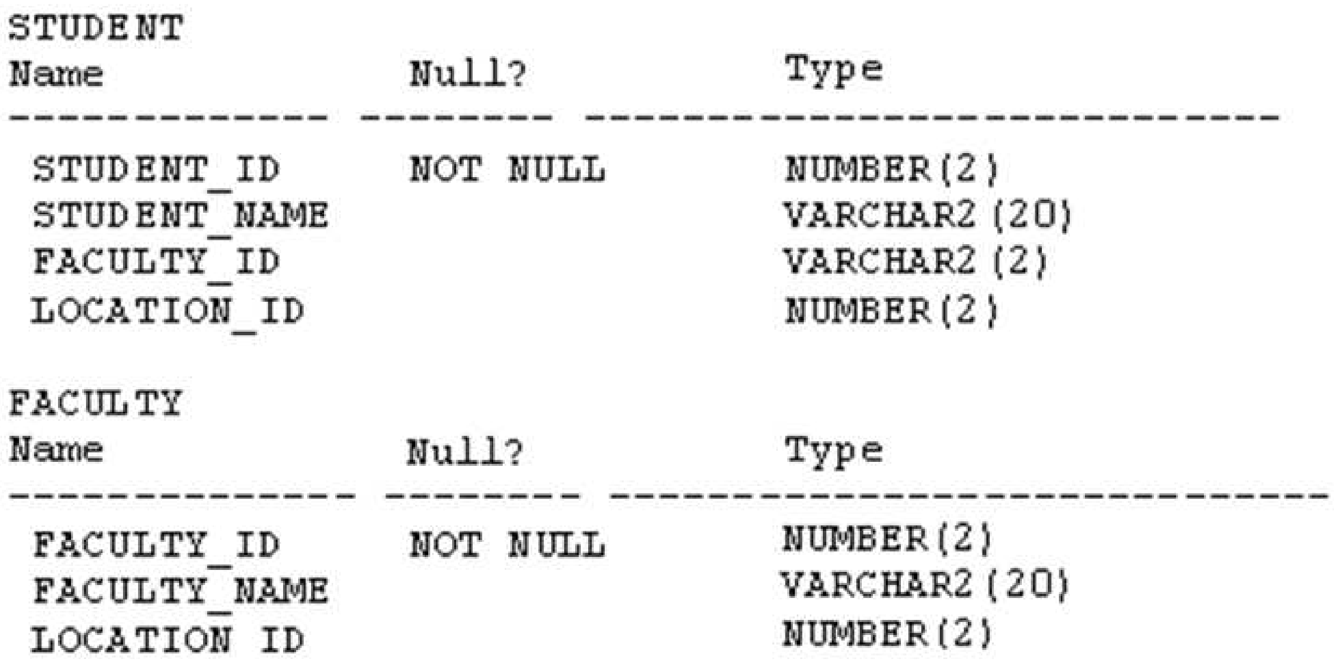
```
PRODUCT
 Name                Null?    Type
 ------------------ -------- --------------------
 PDTNO               NOT NULL NUMBER(3)
 PDTNAME                      VARCHAR2(25)
 QTY                          NUMBER(6,2)

COMPONENT
 Name                Null?    Type
 ------------------ -------- --------------------
 COMPNO              NOT NULL NUMBER(4)
 COMPNAME                     VARCHAR2(25)
 QTY                          NUMBER(6,2)

PDT_COMP
 Name                Null?    Type
 ----------------   -------- --------------------
 PDTNO               NOT NULL NUMBER(2)
 COMPNO              NOT NULL NUMBER(3)
```

A. JOIN; JOIN
B. FULL OUTER JOIN; FULL OUTER JOIN
C. RIGHT OUTER JOIN; LEFT OUTER JOIN
D. LEFT OUTER JOIN; RIGHT OUTER JOIN

Answer: C

Question: 3

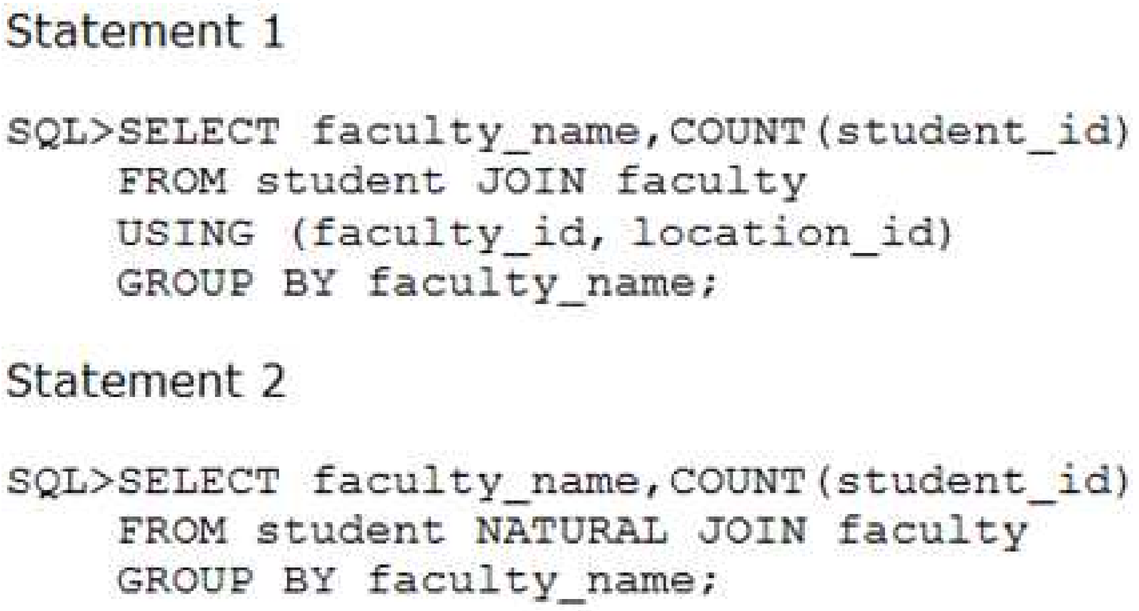
View the Exhibit for the structure of the student and faculty tables.



```
STUDENT
Name               Null?              Type
-------------  --------  -----------------------------

 STUDENT_ID        NOT NULL           NUMBER(2)
 STUDENT_NAME                         VARCHAR2(20)
 FACULTY_ID                           VARCHAR2(2)
 LOCATION_ID                          NUMBER(2)

FACULTY
Name               Null?              Type
--------------  --------  -----------------------------

 FACULTY_ID        NOT NULL           NUMBER(2)
 FACULTY_NAME                         VARCHAR2(20)
 LOCATION ID                          NUMBER(2)
```

You need to display the faculty name followed by the number of students handled by the faculty at the base location.

Examine the following two SQL statements:



Statement 1

```
SQL>SELECT faculty_name,COUNT(student_id)
    FROM student JOIN faculty
    USING (faculty_id, location_id)
    GROUP BY faculty_name;
```

Statement 2

```
SQL>SELECT faculty_name,COUNT(student_id)
    FROM student NATURAL JOIN faculty
    GROUP BY faculty_name;
```

Which statement is true regarding the outcome?

A. Only statement 1 executes successfully and gives the required result.
B. Only statement 2 executes successfully and gives the required result.
C. Both statements 1 and 2 execute successfully and give different results.
D. Both statements 1 and 2 execute successfully and give the same required result.

Answer: D

Question: 4

View the Exhibits and examine products and sales tables.

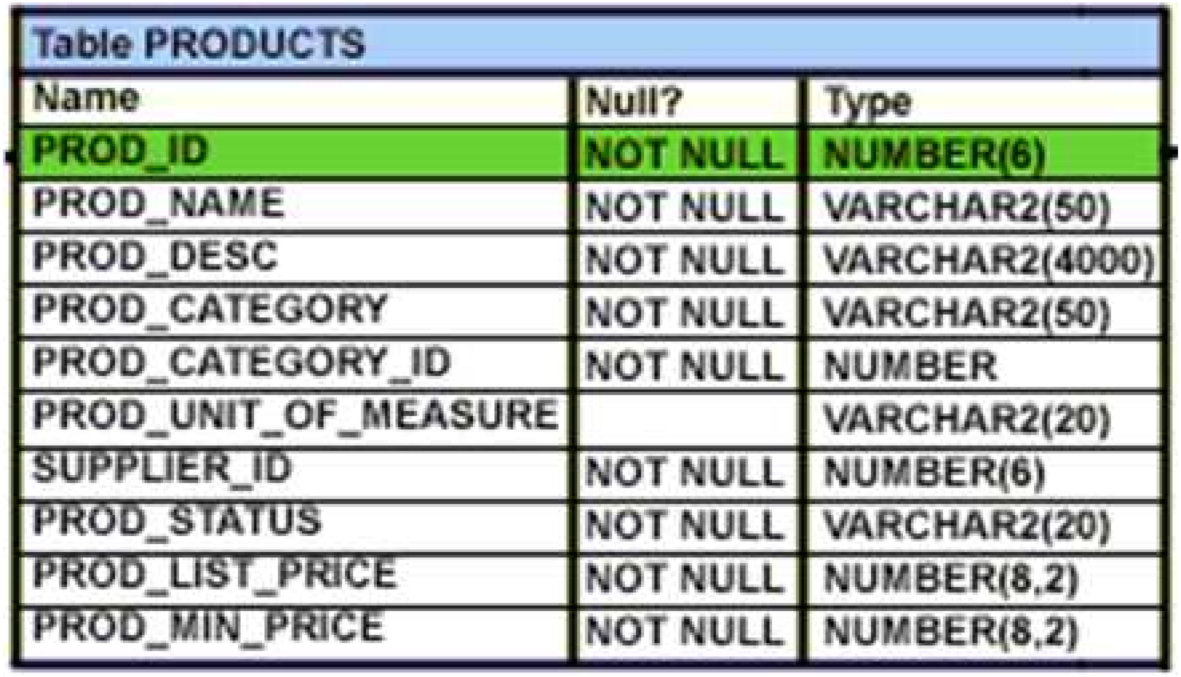


Table PRODUCTS

Name	Null?	Type
PROD_ID	NOT NULL	NUMBER(6)
PROD_NAME	NOT NULL	VARCHAR2(50)
PROD_DESC	NOT NULL	VARCHAR2(4000)
PROD_CATEGORY	NOT NULL	VARCHAR2(50)
PROD_CATEGORY_ID	NOT NULL	NUMBER
PROD_UNIT_OF_MEASURE		VARCHAR2(20)
SUPPLIER_ID	NOT NULL	NUMBER(6)
PROD_STATUS	NOT NULL	VARCHAR2(20)
PROD_LIST_PRICE	NOT NULL	NUMBER(8,2)
PROD_MIN_PRICE	NOT NULL	NUMBER(8,2)

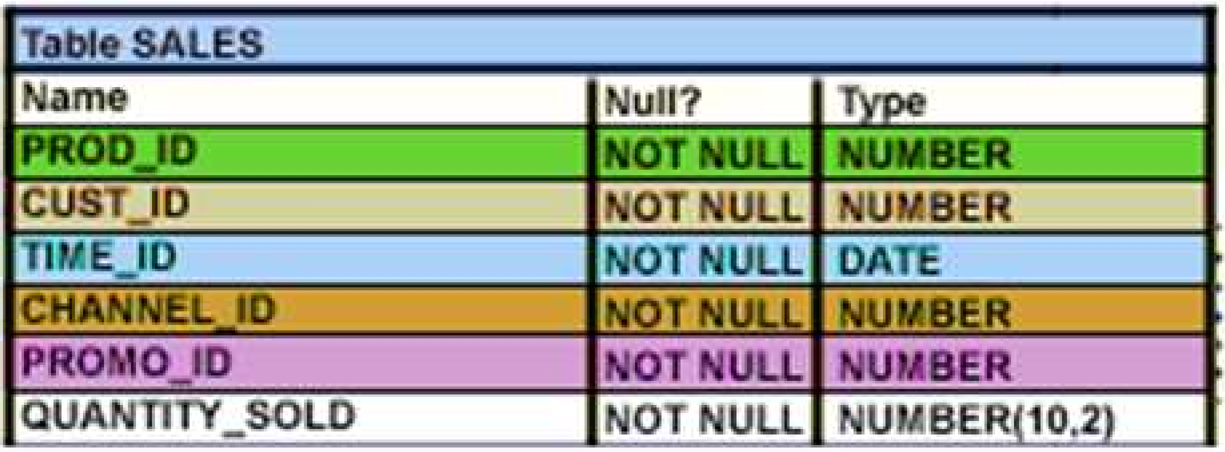
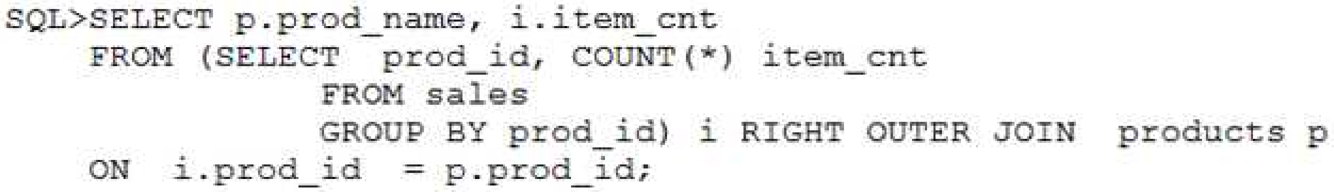


Table SALES

Name	Null?	Type
PROD_ID	NOT NULL	NUMBER
CUST_ID	NOT NULL	NUMBER
TIME_ID	NOT NULL	DATE
CHANNEL_ID	NOT NULL	NUMBER
PROMO_ID	NOT NULL	NUMBER
QUANTITY_SOLD	NOT NULL	NUMBER(10,2)

You issue the following query to display product name and the number of times the product has been sold:



```
SQL>SELECT p.prod_name, i.item_cnt
    FROM (SELECT  prod_id, COUNT(*) item_cnt
                FROM sales
                GROUP BY prod_id) i RIGHT OUTER JOIN  products p
    ON  i.prod_id  = p.prod_id;
```

What happens when the above statement is executed?

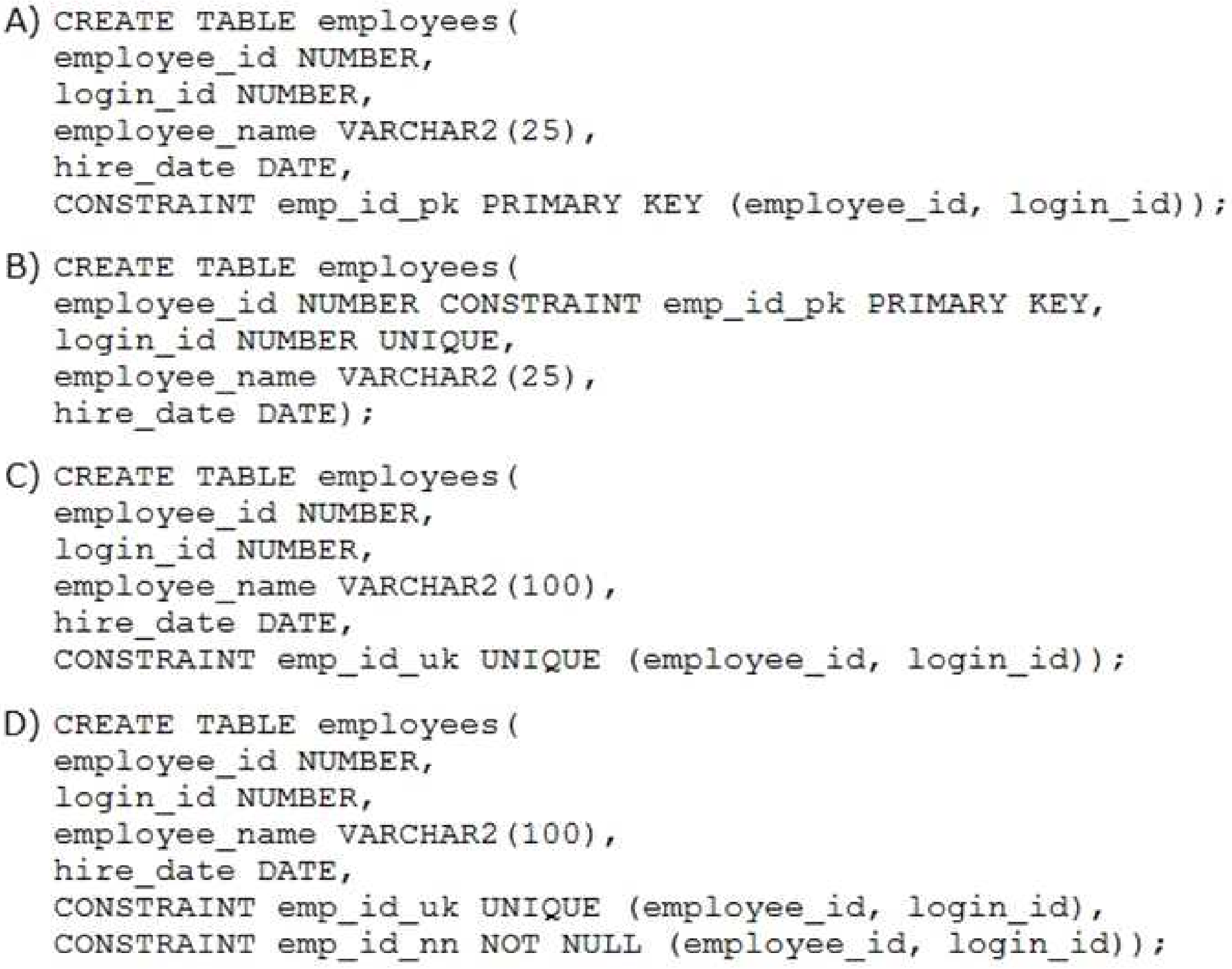
A. The statement executes successfully and produces the required output.
B. The statement produces an error because item_cnt cannot be displayed in the outer query.
C. The statement produces an error because a subquery in the from clause and outer-joins cannot be used together.

D. The statement produces an error because the group by clause cannot be used in a subquery in the from clause.

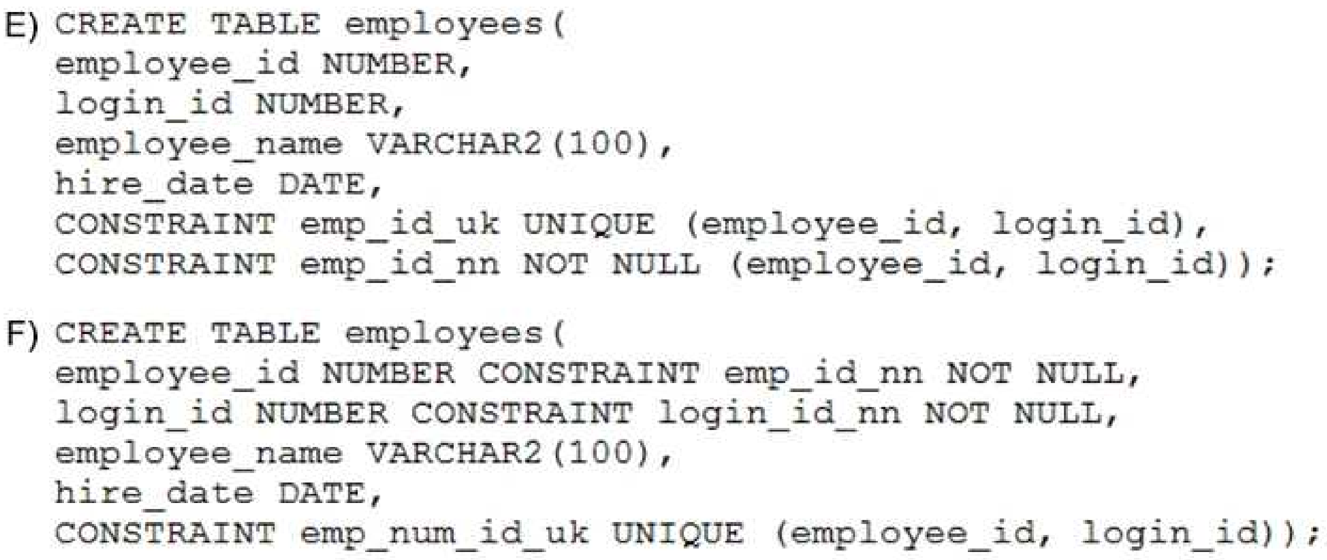
Answer: A

Question: 5

You want to create a table employees in which the values of columns EMPLOYEES_ID and LOGIN_ID must be unique and not null. Which two SQL statements would create the required table?



```
A) CREATE TABLE employees(
   employee_id NUMBER,
   login_id NUMBER,
   employee_name VARCHAR2(25),
   hire_date DATE,
   CONSTRAINT emp_id_pk PRIMARY KEY (employee_id, login_id));

B) CREATE TABLE employees(
   employee_id NUMBER CONSTRAINT emp_id_pk PRIMARY KEY,
   login_id NUMBER UNIQUE,
   employee_name VARCHAR2(25),
   hire_date DATE);

C) CREATE TABLE employees(
   employee_id NUMBER,
   login_id NUMBER,
   employee_name VARCHAR2(100),
   hire_date DATE,
   CONSTRAINT emp_id_uk UNIQUE (employee_id, login_id));

D) CREATE TABLE employees(
   employee_id NUMBER,
   login_id NUMBER,
   employee_name VARCHAR2(100),
   hire_date DATE,
   CONSTRAINT emp_id_uk UNIQUE (employee_id, login_id),
   CONSTRAINT emp_id_nn NOT NULL (employee_id, login_id));
```



```
E) CREATE TABLE employees(
   employee_id NUMBER,
   login_id NUMBER,
   employee_name VARCHAR2(100),
   hire_date DATE,
   CONSTRAINT emp_id_uk UNIQUE (employee_id, login_id),
   CONSTRAINT emp_id_nn NOT NULL (employee_id, login_id));

F) CREATE TABLE employees(
   employee_id NUMBER CONSTRAINT emp_id_nn NOT NULL,
   login_id NUMBER CONSTRAINT login_id_nn NOT NULL,
   employee_name VARCHAR2(100),
   hire_date DATE,
   CONSTRAINT emp_num_id_uk UNIQUE (employee_id, login_id));
```

A. Option A
B. Option B
C. Option C

D. Option D
E. Option E
F. Option F

Answer: A,F

Question: 6

View the Exhibit and examine the structure of the products table.

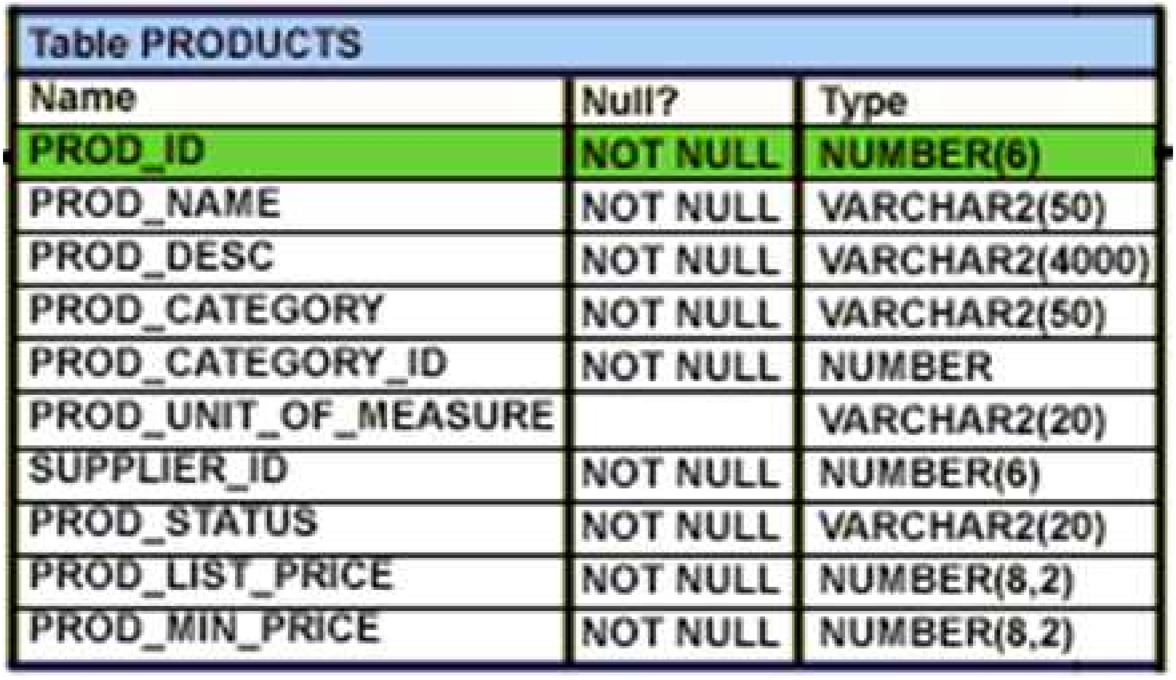
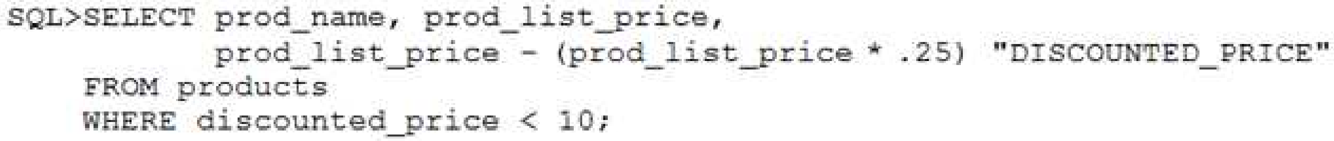


Table PRODUCTS		
Name	Null?	Type
PROD_ID	NOT NULL	NUMBER(6)
PROD_NAME	NOT NULL	VARCHAR2(50)
PROD_DESC	NOT NULL	VARCHAR2(4000)
PROD_CATEGORY	NOT NULL	VARCHAR2(50)
PROD_CATEGORY_ID	NOT NULL	NUMBER
PROD_UNIT_OF_MEASURE		VARCHAR2(20)
SUPPLIER_ID	NOT NULL	NUMBER(6)
PROD_STATUS	NOT NULL	VARCHAR2(20)
PROD_LIST_PRICE	NOT NULL	NUMBER(8,2)
PROD_MIN_PRICE	NOT NULL	NUMBER(8,2)

Using the products table, you issue the following query to generate the names, current list price, and discounted list price for all those products whose list price falls below $10 after a discount of 25% is applied on it.



```
SQL>SELECT prod_name, prod_list_price,
           prod_list_price - (prod_list_price * .25) "DISCOUNTED_PRICE"
     FROM products
     WHERE discounted_price < 10;
```

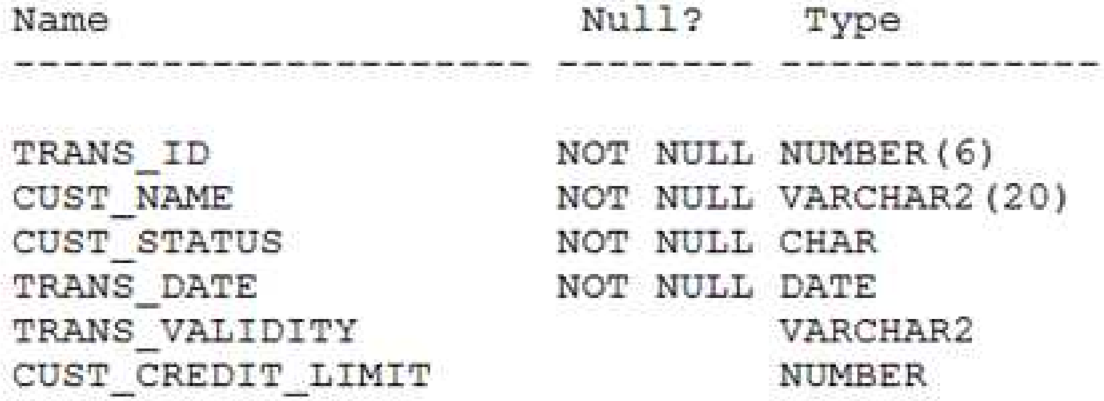
The query generates an error. What is the reason for the error?

A. The parenthesis should be added to enclose the entire expression.
B. The double quotation marks should be removed from the column alias.
C. The column alias should be replaced with the expression in the where clause.
D. The column alias should be put in uppercase and enclosed within double quotation marks in the where clause.

Answer: C

Question: 7

Examine the structure proposed for the transactions table:



```
Name                      Null?    Type
------------------------- -------- -------------

TRANS_ID                  NOT NULL NUMBER(6)
CUST_NAME                 NOT NULL VARCHAR2(20)
CUST_STATUS               NOT NULL CHAR
TRANS_DATE                NOT NULL DATE
TRANS_VALIDITY                     VARCHAR2
CUST_CREDIT_LIMIT                  NUMBER
```

Which two statements are true regarding the creation and storage of data in the above table structure?

A. The CUST_STATUS column would give an error.
B. The TRANS_VALIDITY column would give an error.
C. The CUST_STATUS column would store exactly one character.
D. The CUST_CREDIT_LIMIT column would not be able to store decimal values.
E. The TRANS_VALIDITY column would have a maximum size of one character.
F. The TRANS_DATE column would be able to store day, month, century, year, hour, minutes, seconds, and fractions of seconds

Answer: B,C

VARCHAR2(size)Variable-length character data (A maximum size must be specified: minimum size is 1; maximum size is 4, 000.)
CHAR [(size)] Fixed-length character data of length size bytes (Default and minimum size is 1; maximum size is 2, 000.)
NUMBER [(p, s)] Number having precision p and scale s (Precision is the total number of decimal digits and scale is the number of digits to the right of the decimal point; precision can range from 1 to 38, and scale can range from –84 to 127.)
DATE Date and time values to the nearest second between January 1, 4712 B.C., and December 31, 9999 A.D.

Question: 8

You need to create a table for a banking application. One of the columns in the table has the following requirements:
1) You want a column in the table to store the duration of the credit period.
2) The data in the column should be stored in a format such that it can be easily added and subtracted with date data type without using conversion functions.
3) The maximum period of the credit provision in the application is 30 days.
4) The interest has to be calculated for the number of days an individual has taken a credit for.
Which data type would you use for such a column in the table?

A. DATE

B. NUMBER
C. TIMESTAMP
D. INTERVAL DAY TO SECOND
E. INTERVAL YEAR TO MONTH

Answer: D

INTERVAL DAY TO SECOND stores a period of time in terms of days, hours, minutes, and seconds. This data type is useful for representing the precise difference between two datetime values.
You can perform a number of arithmetic operations on date (DATE), timestamp (TIMESTAMP, TIMESTAMP WITH TIME ZONE, and TIMESTAMP WITH LOCAL TIME ZONE) and interval (INTERVAL DAY TO SECOND and INTERVAL YEAR TO MONTH) data.
– It stores duration of the credit as days
– The format stored is numeric format, and you know that numeric values can be easily added and subtracted with date data type without using conversion functions (i.e. SELECT SYSDATE – 1 FROM DUAL;)
– The interest has to be calculated for the number of days an individual has taken a credit for, so it will be easy to calculate interest by using the interest rate and duration of the the credit which is numeric format.
References:

Question: 9

Which three tasks can be performed using SQL functions built into Oracle Database?

A. Displaying a date in a nondefault format
B. Finding the number of characters in an expression
C. Substituting a character string in a text expression with a specified string
D. Combining more than two columns or expressions into a single column in the output

Answer: A,B,C

Question: 10

View the Exhibit and examine the description of SALES and PROMOTIONS tables.

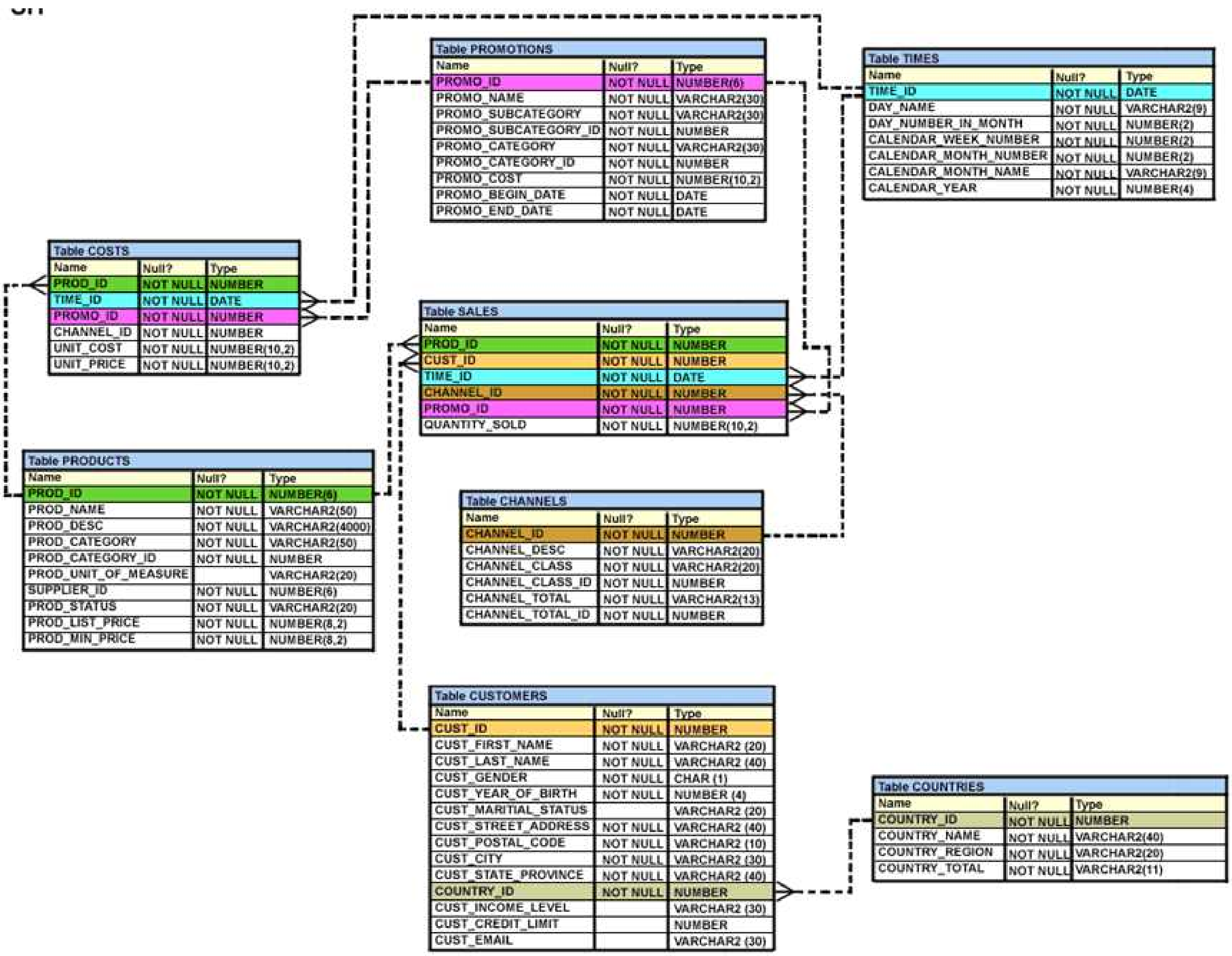


Table PROMOTIONS

Name	Null?	Type
PROMO_ID	NOT NULL	NUMBER(6)
PROMO_NAME	NOT NULL	VARCHAR2(30)
PROMO_SUBCATEGORY	NOT NULL	VARCHAR2(30)
PROMO_SUBCATEGORY_ID	NOT NULL	NUMBER
PROMO_CATEGORY	NOT NULL	VARCHAR2(30)
PROMO_CATEGORY_ID	NOT NULL	NUMBER
PROMO_COST	NOT NULL	NUMBER(10,2)
PROMO_BEGIN_DATE	NOT NULL	DATE
PROMO_END_DATE	NOT NULL	DATE

Table TIMES

Name	Null?	Type
TIME_ID	NOT NULL	DATE
DAY_NAME	NOT NULL	VARCHAR2(9)
DAY_NUMBER_IN_MONTH	NOT NULL	NUMBER(2)
CALENDAR_WEEK_NUMBER	NOT NULL	NUMBER(2)
CALENDAR_MONTH_NUMBER	NOT NULL	NUMBER(2)
CALENDAR_MONTH_NAME	NOT NULL	VARCHAR2(9)
CALENDAR_YEAR	NOT NULL	NUMBER(4)

Table COSTS

Name	Null?	Type
PROD_ID	NOT NULL	NUMBER
TIME_ID	NOT NULL	DATE
PROMO_ID	NOT NULL	NUMBER
CHANNEL_ID	NOT NULL	NUMBER
UNIT_COST	NOT NULL	NUMBER(10,2)
UNIT_PRICE	NOT NULL	NUMBER(10,2)

Table SALES

Name	Null?	Type
PROD_ID	NOT NULL	NUMBER
CUST_ID	NOT NULL	NUMBER
TIME_ID	NOT NULL	DATE
CHANNEL_ID	NOT NULL	NUMBER
PROMO_ID	NOT NULL	NUMBER
QUANTITY_SOLD	NOT NULL	NUMBER(10,2)

Table PRODUCTS

Name	Null?	Type
PROD_ID	NOT NULL	NUMBER(6)
PROD_NAME	NOT NULL	VARCHAR2(50)
PROD_DESC	NOT NULL	VARCHAR2(4000)
PROD_CATEGORY	NOT NULL	VARCHAR2(50)
PROD_CATEGORY_ID	NOT NULL	NUMBER
PROD_UNIT_OF_MEASURE		VARCHAR2(20)
SUPPLIER_ID	NOT NULL	NUMBER(6)
PROD_STATUS	NOT NULL	VARCHAR2(20)
PROD_LIST_PRICE	NOT NULL	NUMBER(8,2)
PROD_MIN_PRICE	NOT NULL	NUMBER(8,2)

Table CHANNELS

Name	Null?	Type
CHANNEL_ID	NOT NULL	NUMBER
CHANNEL_DESC	NOT NULL	VARCHAR2(20)
CHANNEL_CLASS	NOT NULL	VARCHAR2(20)
CHANNEL_CLASS_ID	NOT NULL	NUMBER
CHANNEL_TOTAL	NOT NULL	VARCHAR2(13)
CHANNEL_TOTAL_ID	NOT NULL	NUMBER

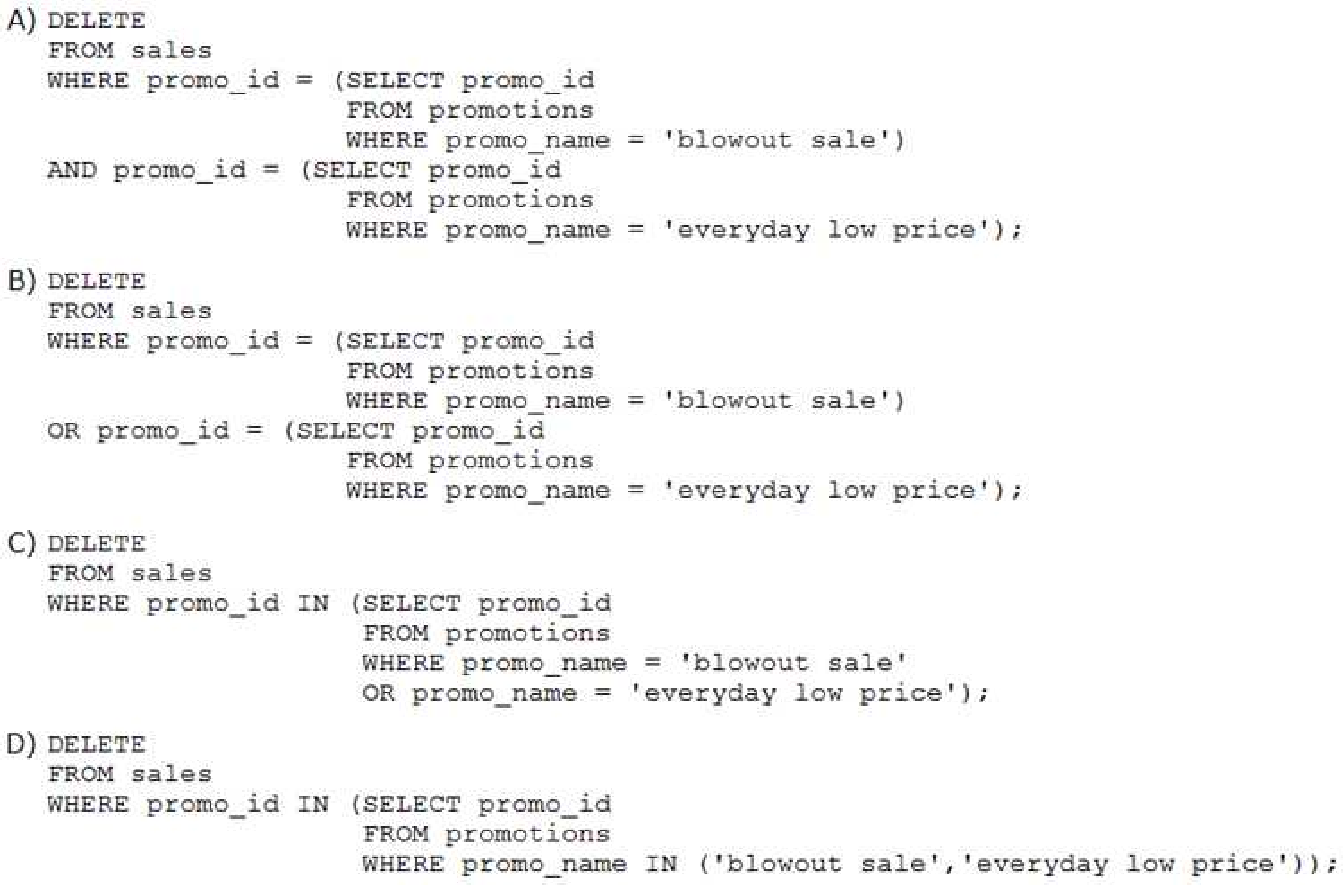
Table CUSTOMERS

Name	Null?	Type
CUST_ID	NOT NULL	NUMBER
CUST_FIRST_NAME	NOT NULL	VARCHAR2 (20)
CUST_LAST_NAME	NOT NULL	VARCHAR2 (40)
CUST_GENDER	NOT NULL	CHAR (1)
CUST_YEAR_OF_BIRTH	NOT NULL	NUMBER (4)
CUST_MARITIAL_STATUS		VARCHAR2 (20)
CUST_STREET_ADDRESS	NOT NULL	VARCHAR2 (40)
CUST_POSTAL_CODE	NOT NULL	VARCHAR2 (10)
CUST_CITY	NOT NULL	VARCHAR2 (30)
CUST_STATE_PROVINCE	NOT NULL	VARCHAR2 (40)
COUNTRY_ID	NOT NULL	NUMBER
CUST_INCOME_LEVEL		VARCHAR2 (30)
CUST_CREDIT_LIMIT		NUMBER
CUST_EMAIL		VARCHAR2 (30)

Table COUNTRIES

Name	Null?	Type
COUNTRY_ID	NOT NULL	NUMBER
COUNTRY_NAME	NOT NULL	VARCHAR2(40)
COUNTRY_REGION	NOT NULL	VARCHAR2(20)
COUNTRY_TOTAL	NOT NULL	VARCHAR2(11)

You want to delete rows from the sales table, where the PROMO_NAME column in the promotions table has either blowout sale of everyday low prices as values.
Which three delete statements are valid?



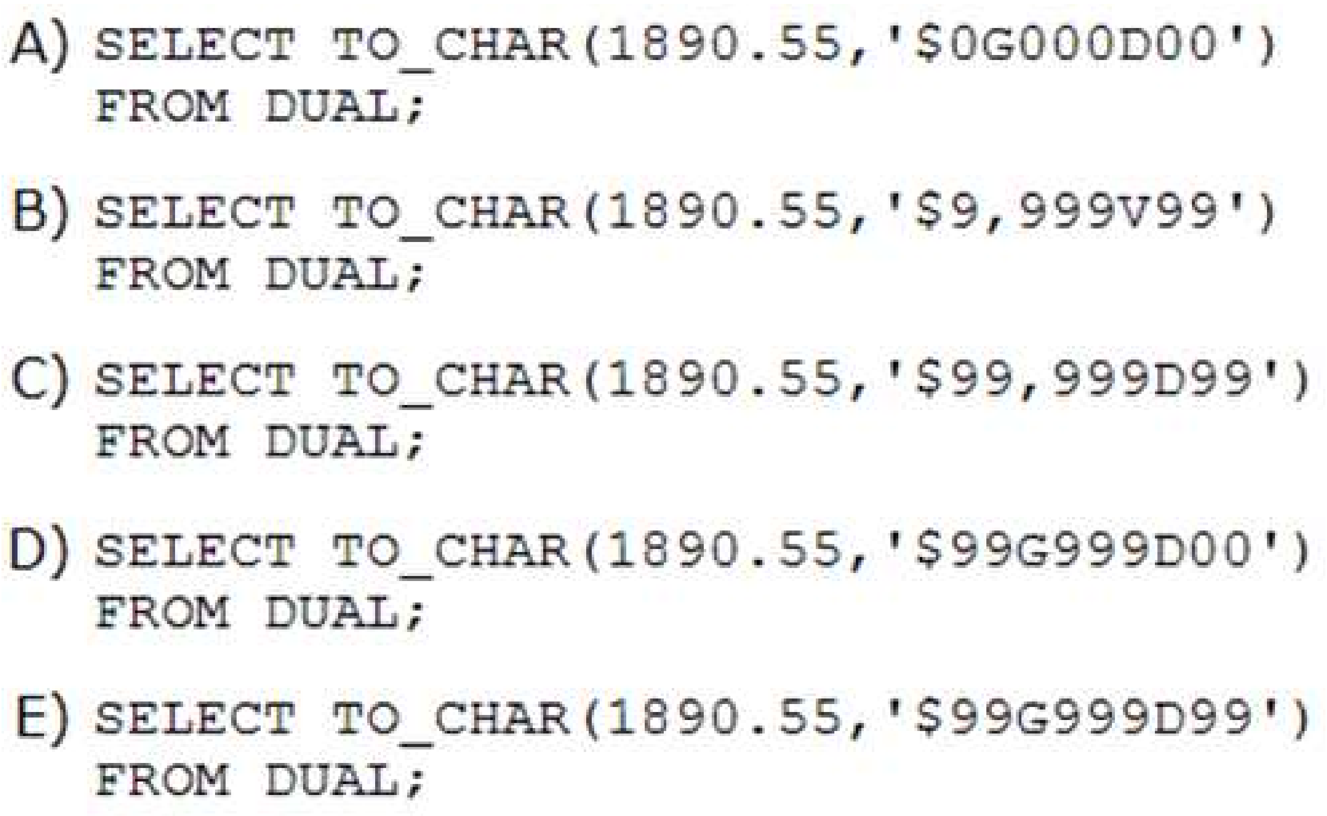
```
A) DELETE
   FROM sales
   WHERE promo_id = (SELECT promo_id
                     FROM promotions
                     WHERE promo_name = 'blowout sale')
   AND promo_id = (SELECT promo_id
                     FROM promotions
                     WHERE promo_name = 'everyday low price');

B) DELETE
   FROM sales
   WHERE promo_id = (SELECT promo_id
                     FROM promotions
                     WHERE promo_name = 'blowout sale')
   OR promo_id = (SELECT promo_id
                     FROM promotions
                     WHERE promo_name = 'everyday low price');

C) DELETE
   FROM sales
   WHERE promo_id IN (SELECT promo_id
                      FROM promotions
                      WHERE promo_name = 'blowout sale'
                      OR promo_name = 'everyday low price');

D) DELETE
   FROM sales
   WHERE promo_id IN (SELECT promo_id
                      FROM promotions
                      WHERE promo_name IN ('blowout sale','everyday low price'));
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B,C,D

Question: 11

Which three SQL statements would display the value 1890.55 as $1, 890.55?



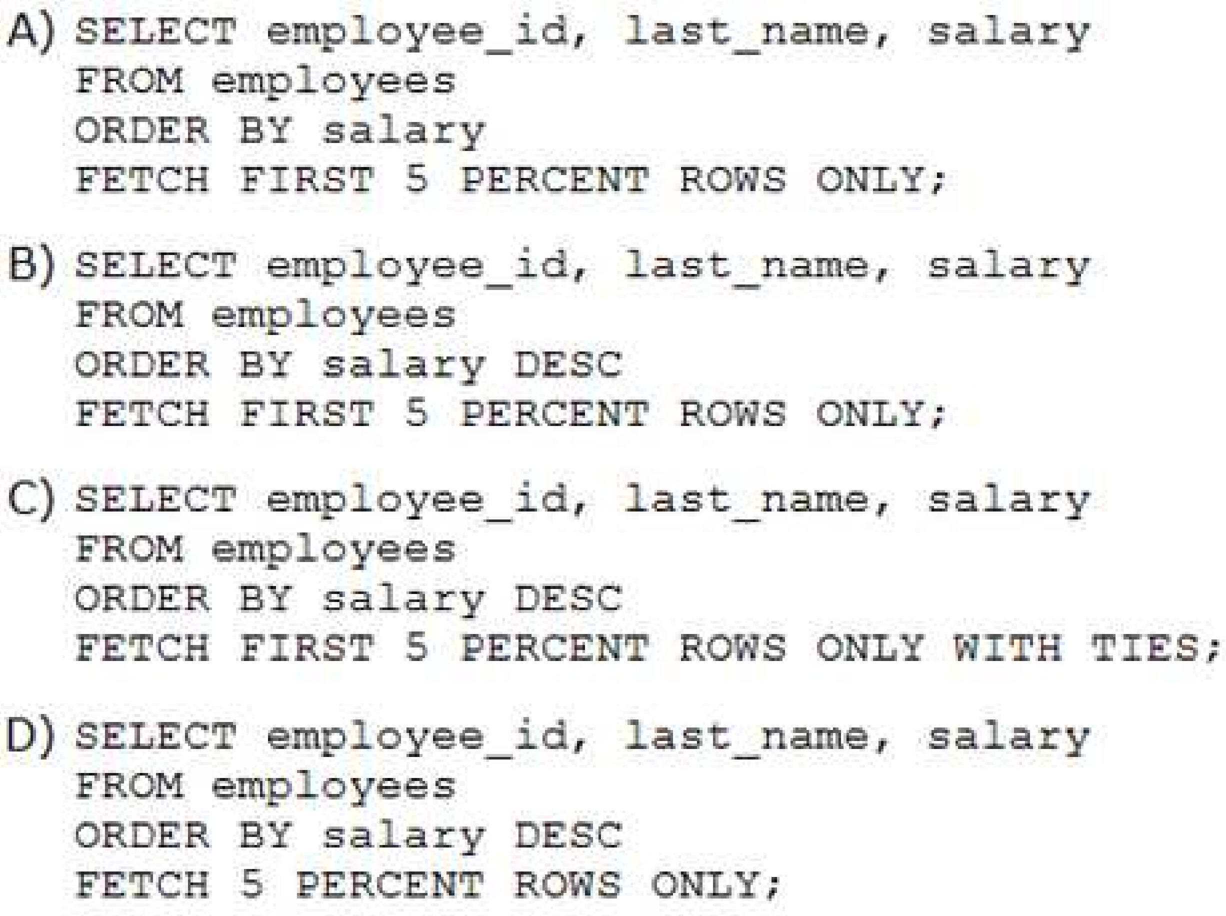
```
A) SELECT TO_CHAR(1890.55,'$0G000D00')
   FROM DUAL;

B) SELECT TO_CHAR(1890.55,'$9,999V99')
   FROM DUAL;

C) SELECT TO_CHAR(1890.55,'$99,999D99')
   FROM DUAL;

D) SELECT TO_CHAR(1890.55,'$99G999D00')
   FROM DUAL;

E) SELECT TO_CHAR(1890.55,'$99G999D99')
   FROM DUAL;
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: A,D,E

Question: 12

You want to display 5 percent of the employees with the highest salaries in the EMPLOYEES table.
Which query will generate the required result?



```
A) SELECT employee_id, last_name, salary
   FROM employees
   ORDER BY salary
   FETCH FIRST 5 PERCENT ROWS ONLY;

B) SELECT employee_id, last_name, salary
   FROM employees
   ORDER BY salary DESC
   FETCH FIRST 5 PERCENT ROWS ONLY;

C) SELECT employee_id, last_name, salary
   FROM employees
   ORDER BY salary DESC
   FETCH FIRST 5 PERCENT ROWS ONLY WITH TIES;

D) SELECT employee_id, last_name, salary
   FROM employees
   ORDER BY salary DESC
   FETCH 5 PERCENT ROWS ONLY;
```

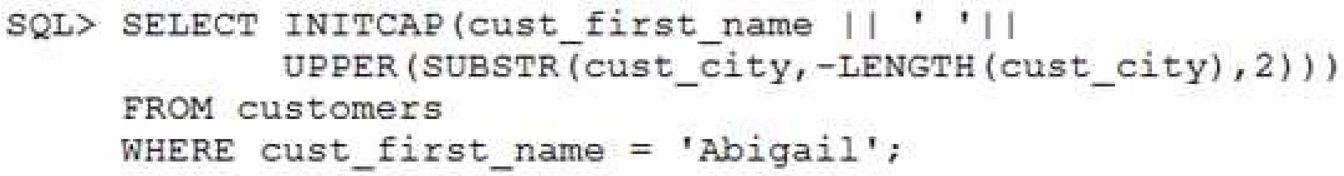
A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

FETCH can only be used with FIRST OR NEXT. The syntax is:
FETCH { FIRST | NEXT } [integer-literal | ?] {ROW | ROWS} ONLY
OFFSET { integer-literal | ? } {ROW | ROWS}
References:

Question: 13

In the customers table, the CUST_CITY column contains the value 'Paris' for the CUST_FIRST_NAME 'Abigail'.
Evaluate the following query:



```
SQL> SELECT INITCAP(cust_first_name || ' '||
            UPPER(SUBSTR(cust_city,-LENGTH(cust_city),2)))
     FROM customers
     WHERE cust_first_name = 'Abigail';
```

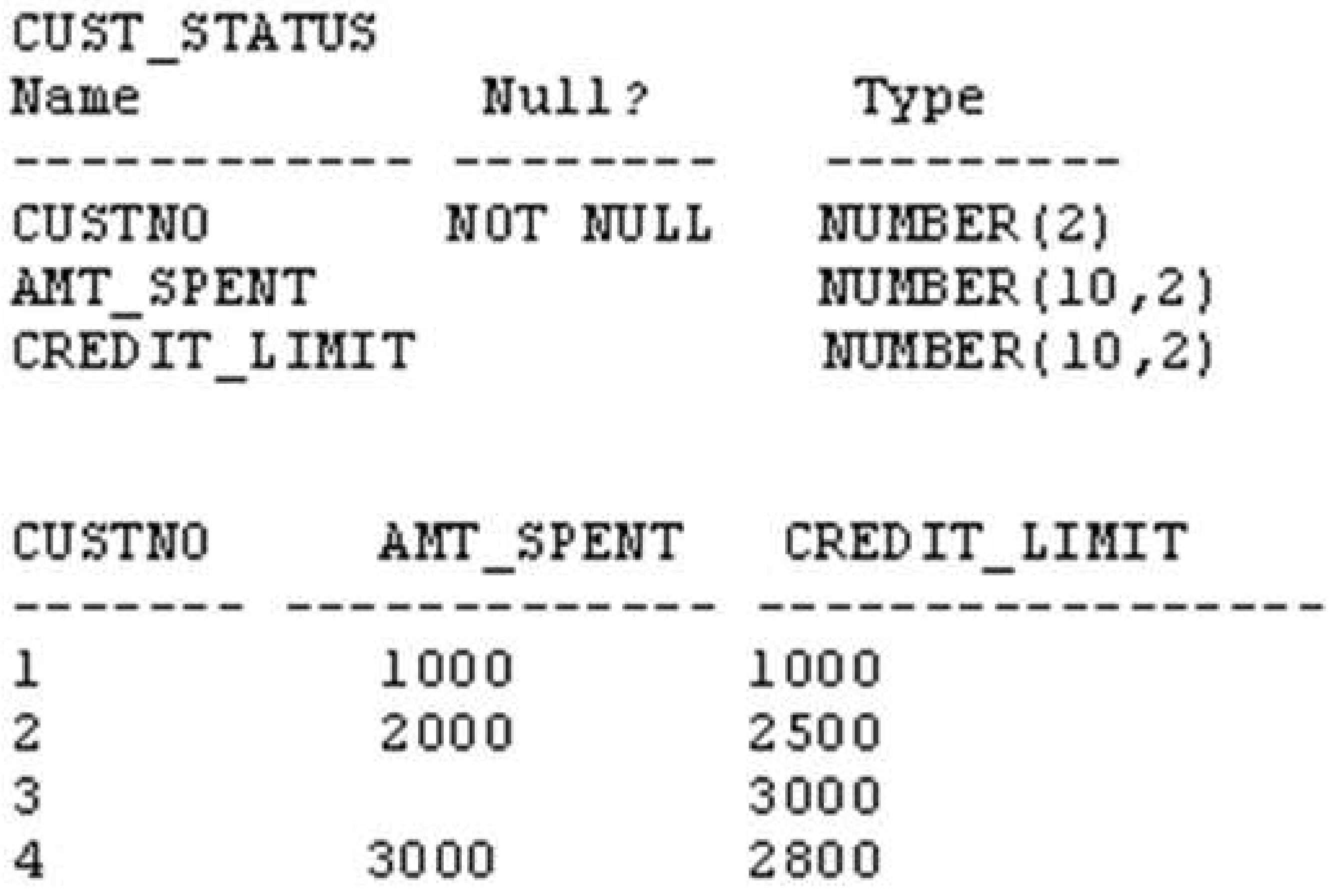
What would be the outcome?

A. Abigail PA
B. Abigail Pa
C. Abigail IS
D. An error message

Answer: B

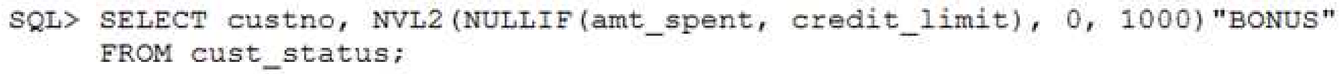
Question: 14

View the Exhibit and evaluate the structure and data in the CUST_STATUS table.



```
CUST_STATUS
Name           Null?       Type
------------- ---------   ----------
CUSTNO         NOT NULL   NUMBER(2)
AMT_SPENT                 NUMBER(10,2)
CREDIT_LIMIT              NUMBER(10,2)


CUSTNO     AMT_SPENT    CREDIT_LIMIT
------- ------------- ---------------
1          1000        1000
2          2000        2500
3                      3000
4         3000         2800
```

You issue the following SQL statement:



```
SQL> SELECT custno, NVL2(NULLIF(amt_spent, credit_limit), 0, 1000)"BONUS"
     FROM cust_status;
```

Which statement is true regarding the execution of the above query?

A. It produces an error because the AMT_SPENT column contains a null value.
B. It displays a bonus of 1000 for all customers whose AMT_SPENT is less than CREDIT_LIMIT.
C. It displays a bonus of 1000 for all customers whose AMT_SPENT equals CREDIT_LIMIT, or AMT_SPENT is null.
D. It produces an error because the TO_NUMBER function must be used to convert the result of the NULLIF function before it can be used by the NVL2 function.

Answer: C

The NULLIF Function
The NULLIF function tests two terms for equality. If they are equal the function returns a null, else it returns the first of the two terms tested.
The NULLIF function takes two mandatory parameters of any data type. The syntax is NULLIF(ifunequal, comparison_term), where the parameters ifunequal and
comparison_term are compared. If they are identical, then NULL is returned. If they differ, the ifunequal parameter is returned.

Question: 15

Which normal form is a table in if it has no multi-valued attributes and no partial dependencies?

A. First normal form
B. Second normal form
C. Third normal form
D. Fourth normal form

Answer: B

According to the Second Normal Form (2NF) there must be no partial dependencies on a concatenated key.

Question: 16

Examine the types and examples of relationships that follow:
1. One-to-one a) Teacher to students
2. One-to-many b) Employees to Manager
3. Many-to-one c) Person to SSN
4. Many-to-many d) Customers to products
Which option indicates the correctly matched relationships?

A. 1-a, 2-b, 3-c, and 4-d
B. 1-c, 2-d, 3-a, and 4-b
C. 1-c, 2-a, 3-b, and 4-d
D. 1-d, 2-b, 3-a, and 4-c

Answer: C