Assignment: SQL Subqueries, CASE, String Functions, and COALESCE

Question 1:

Write an SQL query to find the names of restaurants that have at least one menu item with a price greater than $10.

Solution:

```
SELECT R.NAME
FROM RESTAURANT_INFO R
JOIN MENUITEMS M
ON R.RESTAURANT_ID = M.RESTAURANT_ID
WHERE PRICE>10
GROUP BY R.NAME
ORDER BY R.NAME ASC;
```

Question 2:

Write an SQL query to retrieve the user names and their corresponding orders where the order total is greater than the average order total for all users.

Solution:

```
SELECT U.NAME AS USER_NAME, O.TOTAL_AMOUNT AS TOTAL
FROM USER_INFO U
JOIN ORDERS O
ON U.ID = O.USER_ID
WHERE O.TOTAL_AMOUNT >
(
SELECT AVG(TOTAL_AMOUNT) FROM ORDERS
)
;
```

Question 3:

Write an SQL query to list the names of users whose last names start with 'S' or ends with ‘e’

Solution:

```
SELECT LAST_NAME
FROM
(
SELECT
   SUBSTRING_INDEX(NAME, ' ', -1) AS last_name
   FROM USER_INFO
) as LAST
WHERE
LAST_NAME LIKE 'S%' OR LAST_NAME LIKE '%e'
;
```

Question 4:

Write an SQL query to find the total order amounts for each restaurant. If a restaurant has no orders, display the restaurant name and a total amount of 0. Use the COALESCE function to handle null values.

Solution:

```
SELECT R.NAME AS NAME,  SUM(COALESCE(O.TOTAL_AMOUNT,0)) AS PRICE
FROM ORDERS O
JOIN RESTAURANT_INFO R
ON
O.RESTAURANT_ID = R.RESTAURANT_ID
GROUP BY 1
;
```

Question 5:

Write a query to find out how many orders were placed using cash or credit

Solution:

```
SELECT PAYMENT_TYPE, COUNT(*) TOTAL_ORDERS
FROM
(
SELECT P.PAY_TYPE_ID, T.NAME AS PAYMENT_TYPE
FROM PAYMENT_TRANSACTIONS P
JOIN PAYMENT_TYPE T
ON P.PAY_TYPE_ID = T.PAY_TYPE_ID
) B
GROUP BY 1
;
```