Ahsanullah University of Science and Technology
Department of Computer Science and Engineering
Mid-Term Examination

Time: 60 min [50 min + 10 min (uploading time)]   **Marks: 30**

A. Consider the following Schema Diagram to answer the SQL Query Questions.
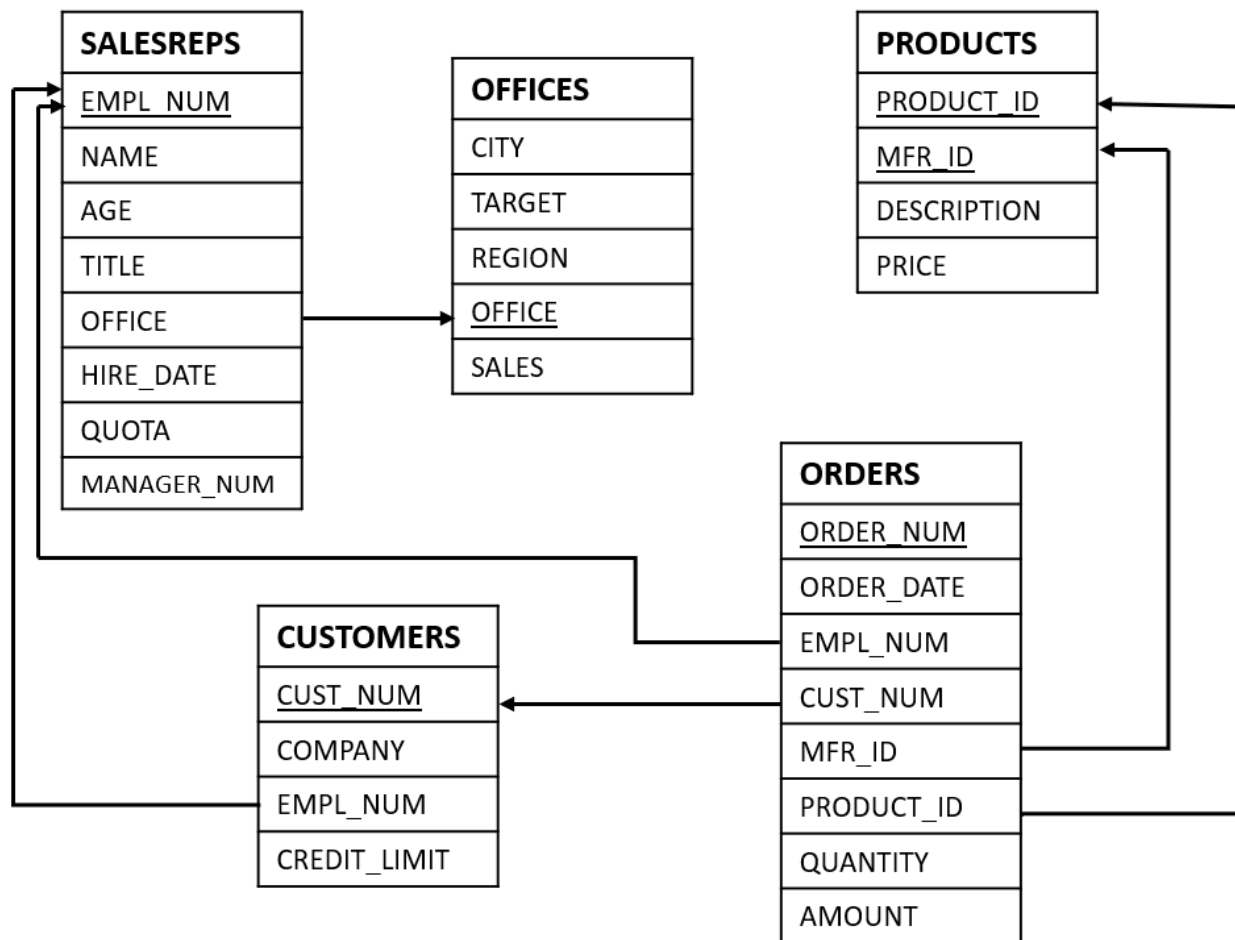

Fig. 1: Structure of an Organization Database

** Questions are on the next page

SQL Query   **Marks: 20**

Questions   **Marks**

1. Find out each salesperson number, name and the city and region   2
where they work.

2. Find the customers who ordered maximum amount (quantity) of   2
products.

3. Find the number of salespeople assigned to each office.   2

4. Find the average order size for each salesperson whose orders total 2
more than $30,000.

5. Find the total amount of the orders taken by salesperson "Andrew   2
Mckenzie".

6. We want to impose 25% vat on each of the ordered products. Now,   2
update the price of the ordered products by considering the new
imposed vat.

7. Write the queries to (i) add a minimum inventory-level column to   2
the PRODUCTS table and (ii) drop the credit_limit column.

8. Find the customers who ordered a product in between January   2
2020 to December 2020 or the product ID consists of "20" in any
place.

9. Find the sales-person's name and city of the office responsible for 2
each order.

10. In the 'SALESREPS' table, for each row (sales-person), the column   2
'EMPL_NUM' contains his/her own employee number, and the
column 'MANAGER_NUM' contains his/her manager's employee
number. Now find the name of every sales-person and his/her
manager's name.

Output   Marks: 10

B. Consider the following scenario to answer the questions (next page).

Branch		
branch_name	*branch_city*	*assets*
Agrabad	Chittagong	10,250,000
Banani	Dhaka	15,750,000
Gulshan	Dhaka	17,000,000

Borrower	
customer_id	*loan_number*
105	1002
102	1004
103	1005
105	1001
106	1000

Loan		
loan_number	*branch_name*	*amount*
1000	Banani	150,000
1001	Agrabad	500,000
1002	Agrabad	325,000
1003	Gulshan	175,000
1004	Agrabad	225,000
1005	Banani	325,000

Account		
account_number	*branch_name*	*balance*
10200	Agrabad	10,500
10201	Agrabad	85,000
10202	Gulshan	60,000
10203	Agrabad	15,000
10204	Agrabad	52,000
10205	Gulshan	102,500
10206	Agrabad	68,000
10207	Banani	100,000

Customer			
customer_id	*customer_name*	*customer_street*	*customer_city*
100	A	Motijheel	Dhaka
101	B	Agrabad	Chittagong
102	C	Hathazari	Chittagong
103	D	Banani	Dhaka
104	E	Gulshan	Dhaka
105	F	Kaptai	Chittagong
106	G	Banani	Dhaka
107	H	Hathazari	Chittagong

** Questions are on the next page

Questions **Marks**

1. SELECT customer_name as cName, customer_street as cStreet FROM customer INNER JOIN borrower on customer.customer_id = borrower.customer_id WHERE loan_number between 1002 and 1004; 2.5

2. SELECT sum(loan.amount) as TotalLoan FROM loan INNER JOIN branch ON branch.branch_name = loan.branch_name WHERE branch.branch_name = 'Banani' OR branch.branch_city = 'Chittagong'; 2.5

3. SELECT account_number, balance*0.5 as updatedBalance FROM account WHERE account_no > 10204 and account.branch_name = 'Chittagong'; 2.5

4. SELECT customer.customer_id FROM customer WHERE customer_street LIKE '%tha'; 2.5