**Answer Sheet by Pejman: Test 2**

A

A schema describing salesperson, customers and their orders is defined as follows: SALESPERSON (id, full\_name, first\_name, middle\_name, Last\_name, age, salary) ORDERS (number, order\_date, cust\_id, salesperson\_id, amount) CUSTOMER (id, name, city, industry\_type) Write the following queries in SQL

i) The top 3 months with the most number of orders. Also provide the corresponding total order value.

SELECT

DATE\_TRUNC('month', order\_date) AS month,

COUNT(number) AS num\_orders,

SUM(amount) AS total\_order\_value

FROM ORDERS

GROUP BY 1

ORDER BY 2 DESC

LIMIT 3;

ii) List down the salespersons’ detail and their latest order\_date for Q1 2014

SELECT

S.id,

S.full\_name,

S.first\_name,

S.middle\_name,

S.last\_name,

S.age,

S.salary,

MAX(O.order\_date) AS latest\_order\_date

FROM SALESPERSON AS S

JOIN ORDERS AS O ON S.id = O.salesperson\_id

WHERE O.order\_date BETWEEN '2014-01-01' AND '2014-03-31'

GROUP BY 1,2,3,4,5,6,7;

iii) Find all duplicate customer data by name and how many times it is duplicated

SELECT

name,

COUNT(\*) AS num\_duplicates

FROM CUSTOMER

GROUP BY name

HAVING COUNT(\*) > 1;

iv) Total order amount for each salesperson for the year 2012

SELECT

S.id,

S.full\_name,

SUM(O.amount) AS total\_order\_amount

FROM SALESPERSON AS S

JOIN ORDERS AS O ON S.id = O.salesperson\_id

WHERE O.order\_date BETWEEN '2012-01-01' AND '2012-12-31'

GROUP BY 1,2;

v) Find customers’ name for salesperson Katy and John

SELECT

C.name

FROM CUSTOMER AS C

JOIN ORDERS AS O ON C.id = O.cust\_id

JOIN SALESPERSON AS S ON O.salesperson\_id = S.id

WHERE S.first\_name IN ('Katy', 'John');

vi) For salespersons with id number 4, 7 and 8 list out the most common industry amongst their customer base.

SELECT

S.id,

S.full\_name,

C.industry\_type,

COUNT(\*) AS num\_customers

FROM SALESPERSON AS S

JOIN ORDERS AS O ON S.id = O.salesperson\_id

JOIN CUSTOMER AS C ON O.cust\_id = C.id

WHERE S.id IN (4,7,8)

GROUP BY 1,2,3

ORDER BY 1,4 DESC;

B

Based on data in excel Data.xls, write the following queries in SQL

i) Find individuals who are interested in Aviation but are not a pilot

SELECT DISTINCT [First Name], [Last Name]

FROM table\_name

WHERE aviation\_interest = 'yes'

AND pilot\_status = 'no';

ii) Find individuals who have an interest in Classical Music

SELECT DISTINCT [First Name], [Last Name]

FROM table\_name

WHERE Hobby LIKE '%classical music%' or hobby=’Classical Music’