ST. XAVIER'S SENIOR SECONDARY SCHOOL, DELHI – 110054

Class 12 Time : 1½ hrs.

19-12-2017 Pre-Annual Test in INFORMATICS PRACTICE M. Marks : 35

1.Write SQL commands for the statement (i) to (v) and give outputs for SQLqueries (vi) to (viii) on basis of the table LAB. [8]

| No | ItemName | CostPerItem | Quantity | DateOFPurchase | Warranty | Operational |
|---|---|---|---|---|---|---|
| 1 | Computer | 60000 | 9 | 21/05/2006 | 2 | 7 |
| 2 | Printer | 15000 | 3 | 21/02/2007 | 4 | 2 |
| 3 | Scanner | 18000 | 1 | 29/08/2008 | 3 | 1 |
| 4 | Scanner | 21000 | 2 | 13/06/2006 | 1 | 2 |
| 5 | Printer | 8000 | 1 | 31/10/2009 | 2 | 1 |
| 6 | | 4000 | 5 | 21/05/2006 | 1 | 4 |
| 7 | Computer | 25000 | 2 | 11/01/2010 | 2 | 2 |

i) Select the item name purchased after 31/01/2007.

ii) To list item name in ascending order of the date of purchase where quantity is more than 3

iii) To count the number of items whose cost is more than 10000

iv) Display the highest and lowest Quantity for each Itemname

v) Display number of items purchased on same date

vi) Select MIN(DISTINCT quantity) from Lab where CostPerItem<15000;

vii) Select COUNT(*), COUNT(Distinct ItemName), COUNT(ItemName) from LAB ;

viii) Select ItemName, Sum(Quantity), Count(*)
from LAB group by ItemName having Count(*)>1;

2. Consider the tables Product and Client given below:. [7]

TABLE : PRODUCT

| P_ID | ProductName | Manufacture | Price |
|---|---|---|---|
| TP01 | Talcom Powder | LAK | 40 |
| FW05 | Face Wash | ABC | 45 |
| BS01 | Bath Soap | ABC | 55 |
| SH06 | Shampoo | XYZ | 120 |
| FW12 | Face Wash | XYZ | 95 |

TABLE : CLIENT

| C_ID | ClientName | City | P_ID |
|---|---|---|---|
| 01 | Cosmetic Soap | Delhi | FW05 |
| 06 | Total Health | Mumbai | BS01 |
| 12 | Live Life | Delhi | SH06 |
| 15 | Pretty | Delhi | FW12 |
| 16 | Dreams | Banglore | TP08 |

Answer the following questions based on the above tables:

i) Identify the primary key and foreign key column in the CLIENT table.

ii) How many rows and columns will be there in the natural join of these two tables?

iii) How many rows and columns will be there in the cross join of these two tables?

iv) Check out the P_ID column of both PRODUCT and CLIENT tables, find out if there is any discrepancy in CLIENT table P_ID field.

v) To display ProductName, ClientName and City whose price is in the range of 50 to 100

vi) To display the Client Name, Manufacturer, Product Name and price in descending order of price

vii) To increase the price of all products by 10.

3. Write the output that will be displayed by each SELECT statement as the SQL statements given below are executed: [3]

A table named ITEM has the following contents:

```
+-------+------------------+------------+
| icode  | iname           | iprice     |
+-------+------------------+------------+
|   101  | CHAIR           |  1500.00  |
|   102  | DINING TABLE | 24000.00 |
+-------+------------------+------------+
```

```
mysql> SET AUTOCOMMIT = 0;
mysql> INSERT INTO ITEM VALUES(103,'COFFEETABLE',340);
mysql> ROLLBACK;
mysql> SELECT * FROM ITEM;
mysql> START TRANSACTION;
mysql> UPDATE ITEM SET IPRICE = IPRICE +200;
mysql>SAVEPOINT S1;
mysql> UPDATE ITEM SET IPRICE = IPRICE +400;
mysql> SELECT * FROM ITEM;
mysql> ROLLBACK TO  S1;
mysql> SELECT * FROM ITEM;
```

4. a) Sohan needs to remove all the data in the EXCHANGE table and the structure of the table along with the indexes associated with the table. Which statement should he use? [1]

b) On the SCHEDULE table, SCHEDULE_ID is the primary key, NAME is the customer name. Evaluate this DELETE statement (whether it is correct or not. Why/why not?)
DELETE SCHEDULE_ID, NAME form schedule; [1]

c) What must exist on the parent table before MySQL will allow you to create a FOREIGN KEY constraint from the child table? [1]

d) What is NOT NULL constraint? How is it different from DEFAULT constraint? [2]

e) Data of table "Players" is given below: [2]

| PLAYER_ NAME | GENDER | FEES |
|---|---|---|
| AJAY | M | 200 |
| SEEMA | F | 100 |
| VINOD | M | 300 |
| TANEJA | F | 500 |

Based on this information, find the output of the following queries:

a. SELECT PLAYER_NAME, FEES* 0.15 FROM PLAYERS where FEES>=500;
b. SELECT PLAYER_NAME FROM PLAYERS ORDER BY GENDER;

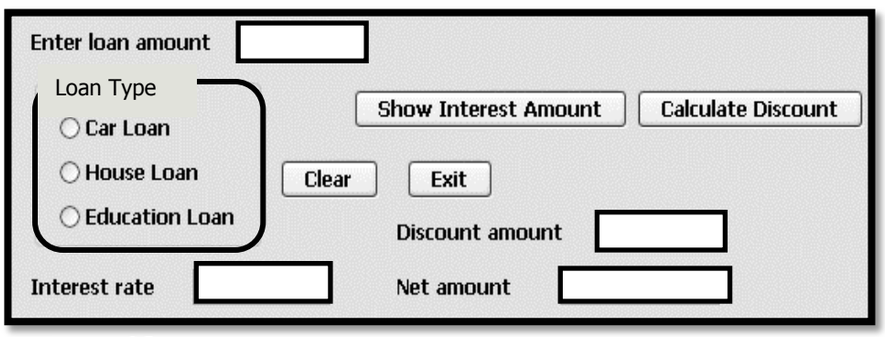
f) A table LIB1 in database has 3 columns and 30 rows. Another similar table LIB2 has 3 columns and 50 rows. All the records from LIB2 are added into LIB1 table. What is the degree and cardinality of LIB1 tables now? [2]

g) What is the role of CANDIDATE KEY in database management system. [1]

h) Write output of the following SQL queries [2]

I. SELECT TRIM("TRAILING SPACES FROM Welcome ");
II. SELECT LENGTH("JAWA");
III. SELECT POWER(5,2) * count (*) FROM Dept ;
(Note : Dept table has 4 records)

5.




a) Write the commands for Show Interest Amount button to show the interest rate in txtRate according to the following criteria : [2]

Car loan – 10%
House loan – 8.5%
Education loan – 5%

b) Write the commands for Calculate Discount button to find discount on an amount and amount after discount. Notice that the bank provides discount on loan amount according to following criteria: [3]

- If amount <= 10,000,00 then 0.20% discount
- If amount > 10,000,00 then 0.25% discount.

The discount amount = Interest Amount - discount amount

-x-x-x-x-x-x-x-