

- (f) Consider the following code: 2
- ```

salary = 20000;
grade= 'g';
switch(grade)
{
case 'x' : salary = 25000;
break ;
case 'y' : salary = 30000;
break ;
}

```
- (i) What will be the value of salary variable after execution of the above code?  
(ii) What will happen if 'break' statements are omitted from the above code?

- (g) How Switch..case is different from If..Else? Explain with an example. 2

3. (a) Arun has applied a Constraint on a column(field) such that Arun must have to insert a value in this field, when he inserts a new row in the table. Which constraint has Ajay used? 1
- (b) Define Primary Key. 1
- (c) 'STUDENT' table has a column named 'REMARK' that stores Remarks. The values stored in REMARK are "PASS" or "NOT PASS" or "COMPTT" etc. Write SQL query to display details of all rows except those that have REMARK as "PASS" . 1

- (d) Write a Query to display the Structure of the table EMPLOYEE. 1

**OR**

Write a Query to display all the constraints along with the field names.

- (e) Find the output of the following: 2  
Table: EMP

| Empno | Ename     | Salary | Deptno |
|-------|-----------|--------|--------|
| 1234  | Rahul     | 2000   | 10     |
| 2315  | Sagar     | 3000   | 20     |
| 4312  | Janvi     | 3000   | 20     |
| 5345  | Aishwarya | 4000   | 30     |

- i) Select Deptno, Avg(Salary) from EMP group by Deptno;  
ii) Select left(ename,4) from emp;

- (f) How Update Command is different from Alter Command? Explain with an example. 2

- (g) What is the use of COMMT? How it is different from ROLLBACK? Explain. 2

**OR**

What is the difference between DDL and DML? Explain with an Example.

4. (a) Write the value that will be stored in the variable **t** after the execution of the following code. How many times will the loop execute ? 2
- ```
int s = 10;
int score = 0;
double t;
do
{
    score = score +2;
    s = s + score;
}
while (score <=5);
t = s / 3;
```
- (b) Write the values of **r** and **s** after the execution of the following code 1
- ```
int p = 24;
int q = 15;
int r;
int s;
r = ++q;
s = p++;
r++;
```
- (c) What will be displayed in **jTextField1** and **jTextField2** after the following code is executed : 2
- ```
int ndigits = 0;

int N = 30;
while (N > 12) {
    ndigits = ndigits + 1;
    N = N-10;
}
jTextField1.setText(" "+ndigits);
jTextField2.setText(" "+N);
```
- (d) Write the value of **C** after executing the following code : 2
- ```
int P;
int R = 8;
int odd;
int C = 0;
for (P = 1; P < R; P=P+3)
{
 odd = P %2;
```

```

if (odd == 1)
{
 C= C+1;
} }

```

- (e) Write Java Code to accept any number from the user and check the number is “Prime” or “Not”. 2
- (f) What is the difference between for loop and While loop? Explain with an example. 2
- (g) Mr. Mark works as a programmer in “TelTel Mobile Company” where he has designed a software to compute charges to be paid by the mobile phone user. A screenshot of the same is shown below :

### TelTel Mobile Company

Name

Mobile Phone Number

Number of Calls Made

Number of SMSs Sent

Mobile Data Plan

Calls and SMS Charges:

Mobile Data Plan Charges:

Amount to Pay:

Each Call is charged at < 1.00.  
Each SMS is charged at < 0.50.

Users can also opt for Mobile Data Plan. Charges for Mobile Data Plan are flat < 50.00.

Help Mr. Mark in writing the code to do the following :

- (i) When the ‘Clear’ button is clicked, all the text fields and checkbox should be cleared. 1

(ii) When the 'Calculate Charges' button is clicked, 'Calls and SMS Charges', 'Mobile Data Plan Charges' and 'Amount to Pay' should be calculated and displayed in the respective text fields.

'Amount to Pay' is calculated as :

Calls and SMS Charges + Mobile Data Plan Charges (if any)

5 (a) How NULL is different from 0(zero)? Explain with an example.

**OR**

How INT data type is different from DECIMAL? Explain with an example.

(b) Rahul is not clear about the difference between the following two statements:

(i) Select count(distinct(deptno)) from emp;

(ii) Select count(deptno) from emp;

Help him understand the difference between these two statements

(c) Consider the following table named as "STAFF" with details. Write Mysql command for (i) to (iv) and output for (v) to (vii).

**Table : STAFF**

| Tno | T_name         | Department | Basic | Allowances |
|-----|----------------|------------|-------|------------|
| S1  | Lakshmi        | Physics    | 27200 | 1500       |
| S2  | Ramkrishana    | Commerce   | 34500 | 1200       |
| S3  | Suresh Kumar   | Chemistry  | 30600 | 1300       |
| S4  | Raj Mohan      | Computer   | 44200 |            |
| S5  | Rakesh Sharma  | Physics    | 43800 | 2000       |
| S6  | Vivek Rawat    | Chemistry  | 24500 | 2500       |
| S7  | Dinesh Goel    | Computer   | 32300 | 1900       |
| S8  | Lokesh Rathore | Commerce   | 41700 | 1600       |

- (i) To display all the STAFFs name and their total salary (Basic+ Allowances) whose name not ends with the character 'R'.
- (ii) Add a new column COMMISSION with integer size of 7.
- (iii) To increase the basic salary by 30000 those who are all in COMPUTER department.
- (iv) To display all the STAFFs name whose BASIC is in the range.20000 to 40000.
- (v) Select department, count(\*) from STAFF group by department;
- (vi) Select LEFT(T\_name,3) , Basic from STAFF where Allowances>1700;
- (vii) Select Sum(basic),Max(allowances) from STAFF;

- 6 (a) Write a Query to create the following table.

Table: Job

| Field name   | Datatype | Size | Constraint  |
|--------------|----------|------|-------------|
| J_Code       | Integer  | 3    | Primary Key |
| J_Desc       | Varchar  | 25   | Not Null    |
| J_Chg_Hr     | Integer  |      |             |
| J_Lastupdate | Date     |      |             |

- (b) Consider the tables Mobile\_Details and DEALERS

Mobile\_Details

| SetCode | Set_Name         | OS      | Cost  |
|---------|------------------|---------|-------|
| N1212   | Nokia Lumia 920  | Windows | 28000 |
| L3423   | LAVA             | Android | 31000 |
| A1234   | Samsung Galaxy 4 | Android | 34000 |

Dealers

| Deal_no | SetCode | City    |
|---------|---------|---------|
| D12     | A1234   | Chennai |
| D37     | N1212   | Chennai |
| D56     | L3423   | Delhi   |
| D32     | N1212   | Mumbai  |
| D43     | A1234   | Mumbai  |

- (i) To Display set name, operating system from Mobile\_details table and the corresponding Dealer Number and city from Dealers Table.
- (ii) To display how many dealers are there in each city.
- (iii) To display the dealer details for each dealer who are all selling Android handsets.
- (c) Find the output of the following:
- (i) `Select round(5678.56,-1)+truncate(3320.45,0);`
- (ii) `Select mod(dayofmonth("2018-02-20"),2);`
- (iii) `Select POW(INSTR('My_Database','_'),2);`
- (iv) `Select instr("Correction","r");`

- 7 (a) Write any two E-Commerce web site names.

- (b) Define Back End.

- (c) Mr. Paul is working as System Developer in Electronics Enterprises. Help him to choose most appropriate controls from List Box, Combo Box, Text Field, Text Area, Radio Button, Check Box, Label and Command Button for the following entries:

2

| SNo | Function                        |
|-----|---------------------------------|
| 1   | Select any number of facilities |
| 2   | To Enter the Name               |
| 3   | Select the department           |
| 4   | Select the gender               |

**End of the Question Paper**