CLASS-XI
INFORMATICS PRACTICES

Time Allowed : 3 Hrs.  Maximum Marks : 70

General Instructions :
(i) All the questions are compulsory.
(ii) The question paper contains 7 questions.
(iii) Programming Language used : Java and RDBMS used : MySQL
(iv) 15 minutes time has been allotted to read this question paper. During the time, the student will read the question paper only, he/she will not write any answer on the answer book during this period.

1. (a) Identify the device used for :  
   (i) Data storage mainly used with digital cameras, computers, mobile phones, music players etc.
   (ii) Printing with a controlled stream of ink, generally low cost printers.

   (b) Which is not a High Level Language (HLL)  
       (i) C
       (ii) C++
       (iii) Machine Language
       (iv) JAVA

   (c) Who amongst the following is not an authentic user to access a file or a folder  
       (i) Owner
       (ii) User having access rights
       (iii) non users

   (d) Give one word for the following :  
       (i) A program that protects websites against bots by generating and grading tests that humans can pass but current computer programs cannot.
       (ii) A small bit of text or a file that accompanies requests and pages as they go between web server and browser.
(e) Write true or false on the basis of following statement:
Worms harm a computer by consuming bandwidth and slows down the speed.

(f) Name the type of software based on the description given below:
(i) These are additional software required to keep our computer system
efficient and trouble free.
(ii) These are a set of programs used to carry out a specific task like word
processor spreadsheets etc.

(g) Write full form of the following:
(i) MICR
(ii) ROM

\(\frac{1}{2} + \frac{1}{2} = 1\)

2. (a) While working in Netbeans, Vidushi included a list box in the form. She wants
the list of her classmates names to be displayed in it. Which property of List
box control should she use to do this?

(b) Which swing control is used to accept multiline text?

(c) Siya has written a program to check whether the given number is 'odd' or
'even'. The code has some errors and is not giving the required result. Correct
the errors, underlining all the corrections made.

```java
int num1;
num1 = Integer.parseInt(jTextField1.getText());
if (num1/2==0)
    jLabel1.setText("Even no.");
else
    jLabel1.setText("odd no.");
```

(d) Which of the following expression(s) can be used to print the value of a variable
no. of type integer?
(i) jTextField1.setText("No = " + "No");
(ii) jTextField1.setText("No" + "=" + No);
(iii) jTextField1.setText (No = + "No");
(iv) jTextField1.setText ("No=" + Integer.toString(No));

Possible answer
(a) both (i) & (ii)          (b) (ii) & (iv)
(c) only (iv)               (d) None of the above

(e) What will be displayed in jTextArea1 after executing the following statement:
jTextArea1.setText("Supreme \t Court\t of\nIndia");
(f) Rewrite the following program code using a Switch statement.

```java
int choice=Integer.parseInt(jTextField1.getText());
if (choice==1)
    jTextField2.setText("Doctor");
else if (choice==2)
    jTextField2.setText("Engineer");
else if (choice==3)
    jTextField2.setText("Lawyer");
else if (choice==4)
    jTextField2.setText("Teacher");
else
    jTextField2.setText("No Match Found");
```

(g) (i) What is the difference between `getText()` method and `setText()` method?

(ii) Write the code to disable the textfield named `jTextField1`.

3. (a) Answer the following:

(i) Which keyboard can be used in an SQL query to eliminate duplicate values in the result?

(ii) Consider the table `Tenants`

<table>
<thead>
<tr>
<th>T_ID</th>
<th>T_Name</th>
<th>T_City</th>
<th>T_Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Varsha</td>
<td>Puri</td>
<td>20000</td>
</tr>
<tr>
<td>101</td>
<td>Nisha</td>
<td>Delhi</td>
<td>15000</td>
</tr>
<tr>
<td>102</td>
<td>Ashish</td>
<td>Patna</td>
<td>18000</td>
</tr>
</tbody>
</table>

(i) Write a MySQL query to display the names of all customers from Puri.

(ii) Name the datatype used for `T_City`.

(iii) Sudha wants to find the result of an arithmetic expression 25*2+6. Write a query to display the result on the screen.

(b) Poonam has written a query in Mysql to display the details of all employees from EMP table, who do not have any value in the salary field.

```sql
Select * from Emp where Salary <> NULL;
```

Help Poonam to run the query by removing the errors from the query and rewriting it.
(c) The Name and Salary columns of a table “Employee” are given below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dinesh</td>
<td>49599.50</td>
</tr>
<tr>
<td>Anil</td>
<td>68566.20</td>
</tr>
<tr>
<td>Shivani</td>
<td>35890.50</td>
</tr>
<tr>
<td>Priyanka</td>
<td>40000.00</td>
</tr>
<tr>
<td>Deepti</td>
<td>25566.00</td>
</tr>
</tbody>
</table>

Based on this information:

(i) Write the MySQL command to display the following output:

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>sh</td>
</tr>
<tr>
<td>il</td>
</tr>
<tr>
<td>ni</td>
</tr>
<tr>
<td>ka</td>
</tr>
<tr>
<td>ti</td>
</tr>
</tbody>
</table>

(ii) What will be the output of the following command?

Select Name, Round (Salary, 0) from Employee;

(d) Consider the following MySQL query:

Select Sno, name from Salesman where city = “Delhi” or city = “Chennai”;

Rewrite the above query without using the or operator.

(e) Differentiate between char and Varchar data types.

4. (a) What will be the value of n after executing the following code:

```java
int n=0, j=5;
if(j > 5)
{
    n=1;
}
else
{
    n=2;
}
```
(b) Rewrite the following code using for loop:

```c
int i=0, sum=0;
while (i < 20)
{
    sum +=i;
    i+=2;
}
```

(c) How many times will the following loop execute?

```c
int x = 0;
int y;
y =1;
do
{
    y+=x;
    x++;
} while (x<=6);
```

What will be the final value of y after execution of the above loop. 1+2=3

(d) (i) Name any two methods of list control. (1)
(ii) Name any one common method of jRadioButton and jCheckbox. (1)

(e) Identify the valid variable name. (1)
(i) 7eleven (ii) Boolean
(iii) int (iv) cloud9

(f) Nidhi has developed an application in Netbeans for the Long Life Laboratory of Faridabad as shown below:

![Application Screenshot]

Write code to do the following:
(i) Calculate and display the Total amount in corresponding TextField when Calculate button is pressed.

(ii) Clear all the Text Fields.

(iii) Close the application when Exit button is clicked.

(iv) Write the code to make the TextField for Total Amount uneditable.

5. (a) Create a table MENU with the following structure:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item_Code</td>
<td>Integer(5)</td>
</tr>
<tr>
<td>Item_Name</td>
<td>Varchar(20)</td>
</tr>
<tr>
<td>Category</td>
<td>Varchar(20)</td>
</tr>
<tr>
<td>Price</td>
<td>Decimal(5,2)</td>
</tr>
</tbody>
</table>

(b) Write the MySql Command to do the following in table Menu. (1×2=2)

(i) To change the size of Category field to 25 characters.
(ii) Increase the price of all items by 25.

(c) Given the following Vehicle relation. Write MySql queries: (1×4=4)

<table>
<thead>
<tr>
<th>Customer_Name</th>
<th>DateofPurchase</th>
<th>Company</th>
<th>Model</th>
<th>Price</th>
<th>Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nidhi</td>
<td>2005-01-10</td>
<td>Tata</td>
<td>Grande</td>
<td>6,50,000</td>
<td>18</td>
</tr>
<tr>
<td>Neelam</td>
<td>2007-02-25</td>
<td>Maruti</td>
<td>Ciaz</td>
<td>4,66,000</td>
<td>20</td>
</tr>
<tr>
<td>Ankur</td>
<td>2012-01-19</td>
<td>Hyundai</td>
<td>Verna</td>
<td>15,00,000</td>
<td>25</td>
</tr>
<tr>
<td>Divya</td>
<td>2014-08-05</td>
<td>Tata</td>
<td>Safari</td>
<td>13,50,000</td>
<td>25</td>
</tr>
<tr>
<td>Gaurang</td>
<td>2015-05-07</td>
<td>Mahindra</td>
<td>Scorpio</td>
<td>14,00,000</td>
<td>28</td>
</tr>
<tr>
<td>Advika</td>
<td>1999-12-02</td>
<td>Tata</td>
<td>Nano</td>
<td>2,00,000</td>
<td>16</td>
</tr>
<tr>
<td>Prisha</td>
<td>2003-02-12</td>
<td>Mercedes</td>
<td>Benz</td>
<td>35,00,000</td>
<td>25</td>
</tr>
<tr>
<td>Purushotam</td>
<td>2007-10-14</td>
<td>Maruti</td>
<td>Wagon</td>
<td>5,00,000</td>
<td>20</td>
</tr>
</tbody>
</table>

(i) To display customer name in descending order of Price.
(ii) To display Company, Model, Price of vehicles which have been bought on 2003-02-12.
(iii) To display the Customer name whose name starts with ‘A’.
(iv) To display Company, DateofPurchase, Mileage, Customer Name whose price is in the range 5,00,000 and 15,00,000.
(d) Write MySQL query to display the length of the string “QUEEN OF HILLS”. (1)

(e) Which function returns the position of the first occurrence of a substring in a string.
   (i) concat()
   (ii) Instr()
   (iii) Substring()
   (iv) Left()

6. (a) Write the output of the following MySQL statements: (1x4=4)
   (i) SELECT SUBSTR('PARLIAMENT', 2,7);
   (ii) SELECT RIGHT ('HYDERABAD', 4);
   (iii) SELECT POWER (-2, 3);
   (iv) SELECT MONTH ('2016-02-14');

(b) Consider the table Library and write the output of the following queries: (4)

<table>
<thead>
<tr>
<th>Book_ID</th>
<th>Book_Name</th>
<th>Category</th>
<th>Price</th>
<th>Publisher</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Music &amp; Dancing</td>
<td>Entertainment</td>
<td>300</td>
<td>Friends Publishers</td>
<td>460</td>
</tr>
<tr>
<td>202</td>
<td>Britannica India</td>
<td>Generalities</td>
<td>800</td>
<td>Radiant Printers</td>
<td>425</td>
</tr>
<tr>
<td>303</td>
<td>Dayananda</td>
<td>Philosophy</td>
<td>400</td>
<td>DAV Publications</td>
<td>128</td>
</tr>
<tr>
<td>404</td>
<td>Digit</td>
<td>Computer</td>
<td>200</td>
<td>Media Publication</td>
<td>125</td>
</tr>
<tr>
<td>505</td>
<td>Indian Economy</td>
<td>Commerce</td>
<td>570</td>
<td>Sultan Chand</td>
<td>799</td>
</tr>
<tr>
<td>606</td>
<td>Complete Craft</td>
<td>Generalities</td>
<td>1500</td>
<td>Murdoch Publication</td>
<td>336</td>
</tr>
<tr>
<td>707</td>
<td>Website designing</td>
<td>Computer</td>
<td>750</td>
<td>Tata McGrawHill</td>
<td>550</td>
</tr>
</tbody>
</table>

(i) SELECT CONCAT('Book_Name', 'Price') FROM LIBRARY where Category='Computer';

(ii) SELECT DISTINCT(Category) FROM Library;

(iii) SELECT LOWER(Publisher) FROM LIBRARY WHERE Book_Name='Digit';

(iv) SELECT MID(PUBLISHER,4) FROM LIBRARY where pages >700;

(c) What is the difference between the curdate() and Date() functions of MySQL. (1)

(d) Write the command to display structure of a table Salesman. (1)
7. (a) What factors contribute in making e-learning a success today? List any two. (2)

(b) Jeet is working in a Municipal Corporation. He wishes to create controls on a form for the following functions. 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 from user: (2)

(i) A control to display the name of the Municipal Corporation.
(ii) An input for accepting the name of the child.
(iii) An input for choosing the gender of the child.
(iv) A control for submitting the form.

(c) What is e-waste? (1)