1. 
   a. What is the function of a bus? [1]
   b. Differentiate between single user and multi user operating system. [2]
   c. What do you mean by BIOS? [1]
   d. Write any four safety measure you follow to protect your computer. [2]
   e. What is cyber crime? Give four examples. [2]
   f. Write one difference between virus and worms. [1]
   g. Name two utility software. [1]

2. 
   a. Which property of palette ListBox is used to enter the list of items while working in NetBeans. [1]
   b. What is the difference between the use of JTextField and JPasswordField? [1]
   c. Name the method to display a specified message in a dialog box. [1]
   d. What is the purpose of break statement in a switch statement? Give suitable example to illustrate the same [2]
   e. Rewrite the following while loop into for loop [2]

   ```java
   I=0, sum =0;
   while(I <20)
   {
      sum += I ;
      I = I +2 ;
   }
   ```
   f. Write Java code for the following: [4]
      i. Write Java code that takes value of Temperature in Celsius in JTextField1 and convert it into Fahrenheit and display it in JTextField2
      ii. Write Java code that takes value for a number (n) in JTextField1 and cube (n*n*n) of it to be displayed in JTextField2.

3. 
   a. What will be the content of JTextArea1, JTextField1 and str1 after the execution of the following statements.
i. jTextArea1.setText("WORK\t MORE\n GETMORE");

ii.
int Num = 6;
Num = Num + 1;
if ( Num > 5)
jTextField1.setText(Integer.toString(Num));
else
  jTextField1.setText(Integer.toString(Num+5));

iii. String str1, str2;
    str1 = “ dear friend”;
    str2 =”Hello”;
    str1 = str2.concat(str1);

b. i. Rewrite the following program code using a Switch statement.

    if (code ==1)
    Day = "Monday";
    else if (code == 2)
    Day = "Tuesday";
    else if ( code ==3)
    Day = "Wednesday";
    else if ( code == 4)
    Day = "Thursday";
    else
    Day = "No Match";

   ii. What will be the displayed in jTextField1 and jTextField2 after the execution of the following code.

   int last , first=3, second = 5;
   last = first + second ++;
   jTextField1.setText(Integer.toString(last));
   jTextField2.setText(Integer.toString(second ));

C. An electronic shop has announced the following seasonal discounts on the purchase of certain items.

<table>
<thead>
<tr>
<th>Shopping amount</th>
<th>Discount on TV</th>
<th>Discount on music system</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25000</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>25001-50000</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>More than 50000</td>
<td>15%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Write the Java code for the following:

i. Compute discount and print the net amount to be paid by a customer on click of command button “CALCULATE” based on the above table.
   [Hint: Discount = (Discount rate / 100) * shopping amount
   Net amount = shopping amount - discount.]

ii. To clear all text fields on click of command button CLEARALL

iii. To stop the execution and exit from application on the click of command button EXIT

4. 
   a. What is the keyword is used to eliminate redundant data? [1]
   b. What is the difference between CURDATE() and DATE() functions? [1]
   c. Define alternate key? [1]
   d. What is DBMS? [1]
   e. What is primary key? Explain with example. [2]
   f. Differentiate between DDL and DML commands in MySQL [2]

5. 
   a. Write the output that the following statements will produce : [4]
      i. SELECT ROUND(7.3456, 2);
      ii. SELECT DAYOFMONTH('2009-08-25');
      iii. SELECT MONTH('2010-02-26');
      iv. SELECT RIGHT('Informatics', 4);

   b. Write MySQL statement for the following:

      i. Using the three separate words "We," "study," and "MySQL," [1]
      produce the following output: "We study MySQL"
ii. Use the string "Internet is a boon" and extract the string "net".  

iii. To create the following Table student

<table>
<thead>
<tr>
<th>Name of the column</th>
<th>Type</th>
<th>size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Char</td>
<td>20</td>
</tr>
<tr>
<td>Rollno</td>
<td>Integer</td>
<td>4</td>
</tr>
<tr>
<td>Class</td>
<td>Char</td>
<td>4</td>
</tr>
<tr>
<td>Dob</td>
<td>date</td>
<td></td>
</tr>
</tbody>
</table>

c. Name the MySQL command for the following purpose:

i. To delete only rows
ii. To add a new column
iii. To add a new rows
iv. To change values in a database.

6

a. Consider the following table FITNESS with details about fitness products being sold in the store. Write SQL commands for (i) to (vi)

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME</th>
<th>PRICE</th>
<th>MANUFACTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treadmill</td>
<td>21000</td>
<td>Coscore</td>
</tr>
<tr>
<td>2</td>
<td>Bike</td>
<td>20000</td>
<td>Aone</td>
</tr>
<tr>
<td>3</td>
<td>Multi gym</td>
<td>14000</td>
<td>Reliable</td>
</tr>
<tr>
<td>4</td>
<td>Massage chair</td>
<td>5500</td>
<td>Regroscene</td>
</tr>
<tr>
<td>5</td>
<td>Belly vibrator belt</td>
<td>6500</td>
<td>Ambaway</td>
</tr>
<tr>
<td>6</td>
<td>Treadmill</td>
<td>22000</td>
<td>Abc</td>
</tr>
</tbody>
</table>

i. To display all products with price more than 20000
ii. To display the names all products by manufacture “Aone”.
iii. To change the price of all products by applying 25% discount reduction
iv. To add new row for product with details:

  7, “VIBRO EXCERCISER”, 28000, “XYZ”
v. To display whole table in descending order of price
vi. To show all products whose name starts with “T”

b. Write the output of the following based on the table FITNESS

i. Select * from fitness where price between 2000 and 22000
ii. Select distinct name from fitness;
iii. Select price from fitness where price <10000;
iv. Select * from fitness where manufacture = “Abc”;

7.

a. What social impact does e-Governance have on society?

b. Write two important features of e-Business.
   Give two most commonly used e-Business sites.

b. What is the impact of e-Learning sites on students learning process?
   Give any two e-learning sites