Q.NO1.
(a). Name the device that is used to regenerate a signal which is on its way through a Communication channel.
(b). What is the difference between a domain and URL?
(c). Define any two threats to Network Security.
(d). Give an advantage of using star topology over Bus topology. 
   show a network layout of star Topology to connect 5 computers.
(e). Why switch is called intelligent Hub?
(f). Mr. Jayanto Das is confused between Shareware and Open source software. 
   Mention at least two points of differences to help her understand the same.
(g). Ms. Vidya is confused between Proprietary Software and Open Source Software. 
   Mention at least two points of difference to help her understand the same.
(h). What is denial of service attacks? Give two examples.
(i). expand the following terms: I. NRCFOSS II. OSS III. GNU IV. ASCII

QNO2.
(a). While making a form in netbeans, Mr. Brown wants to display a list of countries to allow 
    the users to select their own country. Suggest him to choose appropriate control out of 
    List Box and Combo Box.
(b). What is the purpose of break statement in switch statement? Explain with example.
(c). Name the property which should be set true to set background colour of the Jlabel
(d). Write java code to make the Text filed TF1 uneditable
(e). What is the value of I and S after executing the following code?
    ```java
    int I, J, S = 0;
    for(I=1, J=4; I<=3; I++, J+=2)
    {
        S+= J*I;
    }
    ```
(f). What is the significance of the following properties in TextArea?
   i. LineWrap  ii. WrapStyleWord
(g). Write a Java code that takes two values (A&B) in JTextField1 and JTextField2 respectively and exchanges (swap) the value A and B without using third variable. Display the swapped value in the JOptionpane.

QNO3.
(a). Write a MySql command to show the name of the current database.
(b). Mr. White wants to see the structure of the table. What MySql statement should he use?
(c). What is the use of DAYOFYEAR() and DAYNAME()? Explain with example.
(d). List four benefits of using DBMS.
(e). What is PRIMRY key? Explain with example?
(f). Differentiate between DDL and DML command with examples.
(g). Mr. Brown wants to change the size of the column ENAME from 6 to 10 in emp table. Write a MySql statement to do the same.
(h). Table school has 5 rows and 10 columns. What is the cardinality and degree of this table?
(i). What is the difference between INSTR() and MID() function in Mysql? Explain with example.

QNO4.
(a). Define the term polymorphism. What are the two ways polymorphism is demonstrated in Java.
(b). Carefully study the code given below:
   String msg = “HELLO!HOWAREYOU?”;
   String MSG1,MSG2;
   MSG1 = msg.substring(5);
   MSG2 = msg.substring(2,5);

   What will be the contents of the variables MSG1 and MSG2 after the above statements are executed?
(c). Rewrite the following program code using if statement:
   Int C = jComboBox1.getSelectedItem();
   switch(C){
   case 0: amount = bill; break;
   case 1: amount = 0.8 * bill; break;
   case 2:
   case 3: amount = 0.65 * bill; break;
   default: amount = bill;
   }
(d). How many times the following while loop get executed?
   What is the last value displayed?
   int A= 10;
   while(++A<15) {
   System.out.println(++A); }
(e) What will be the values of variables M and N after the execution of the following code?

```c
int M, N=0;
for(M=2;M<=4;M++)
{
    N += M;
    N--;
}
```

(F) Glamour Garments has developed a GUI application for their company as shown below:

The company accepts payments in 3 modes: cheque, cash and credit cards. The discount given as per mode of payment is as follows:

<table>
<thead>
<tr>
<th>Mode of Payment</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>22%</td>
</tr>
<tr>
<td>Cheque</td>
<td>12%</td>
</tr>
<tr>
<td>Credit Card</td>
<td>14%</td>
</tr>
</tbody>
</table>

If the Bill Amount is more than 15000 then the customer gets an additional discount of 10% on Bill Amount.

(i) Write the code to make the textfields for Discount amount (named txtDisc) and Net Amount (named txtNetAmt) uneditable.

(ii) Write code to do the following:

a. When "CALCULATE DISCOUNT AMOUNT" button is clicked the discount should be calculated as per the given criteria and it should be displayed in the discount textfield. "CALCULATE NET" button (named btnCalcNetAmt) should also be enabled.
b. When "Calculate Net Amount" button is clicked the net amount should be calculated and it should be displayed in the net amount textfield.

c. Write Java code for CLEAR ALL to clear all Textfields and code foe EXIT button to exit from an application.

QN05.

consider the table SHOPPE given below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Company</th>
<th>Qty</th>
<th>City</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>Biscuit</td>
<td>Hide</td>
<td>100</td>
<td>Delhi</td>
<td>10</td>
</tr>
<tr>
<td>103</td>
<td>Jam</td>
<td>Kissan</td>
<td>110</td>
<td>Kolkata</td>
<td>25</td>
</tr>
<tr>
<td>104</td>
<td>Magi</td>
<td>Nestle</td>
<td>150</td>
<td>Mumbai</td>
<td>10</td>
</tr>
<tr>
<td>105</td>
<td>Chocolate</td>
<td>Cadbury</td>
<td>170</td>
<td>Delhi</td>
<td>25</td>
</tr>
<tr>
<td>106</td>
<td>Sauce</td>
<td>Abc</td>
<td>56</td>
<td>Mumbai</td>
<td>55</td>
</tr>
<tr>
<td>107</td>
<td>Cake</td>
<td>Britannia</td>
<td>72</td>
<td>Delhi</td>
<td>10</td>
</tr>
</tbody>
</table>

Answer the following questions:

(a).

i. identify the primary key of the Shoppe table
ii. Add a column named totalprice with data type decimal and size 6
iii. Change size of the column totalprice from 6 to 10
iv. Delete a column totalprice from table Shoppe.

(b) Write command in MYSQL for (i) to (ix) based on table SHOPPE

i. Display names of the items whose name starts with 'M' in descending order of price
ii. To increase the price by 15% and qty by 10 for all items in Mumbai
iii. To display all items whose price is between 120 to 160
iv. To show all information about items whose company name start with 'B'

v. To show price of all biscuits, cakes and Jam
vi. To show all items from Nestle company.

vii. To show item name, company, price, qty and total value. Where total value is calculated as price * qty.

viii. To display different companies from shoppe table
ix. To insert a new row in the table shoppe

110, 'pizza', 'papa jones', 120, 'kolakatta', 50

(C) Write the output of the following SQL queries:

a) SELECT ROUND(6.5675,3);

b) SELECT TRUNCATE(5.3456, 2);

c) SELECT DAYOFMONTH('2012-05-25');

d) SELECT MID('APPLESIRI', 3);