SECTION A

Q1.

a) What does a bus mean? Why is data bus bi-directional?   2

b)What is a port? Name some port types.   2

c) define

  2

  (i) phishing

  (ii)IDE

  (iii)Software

  (iv) firmware

d)What measures you would take to avoid   2

  (i) Spyware

  (ii) PC Intrusion

e) Distinguish between RAM and ROM?   2

Q2.

a) What benefits an e-business offers to a customer? What issues are till to be care of?

  2

b)Define   2

  (i) e-learning

  (ii) e-governance

c)Name any two e-business sites.
  1

d) Name event listeners for the following actions:-   2

  (i) a component receives capability to receive input i.e focus

  (ii)key is pressed on the keyboard

e) Define   2

  (i) Algorithm

  (ii) Robustness

f) Method call in which data in actual parameter remains intact is known as _____? 1

Q3.

a) What is data redundancy? What are the problems associated with it?   2

b) Differentiate between DDL and DML commands.   2

c) How is round( ) function different from truncate( ) function? Explain giving   2

suitable example.

d) Write a query to create a string from the ASCII values 70,65,67,69.   1

e) What is the following command doing?   1

        ALTER TABLE persons ADD CONSTRAINT chk_Person

        CHECK(P_ID>0 AND City='Simla');

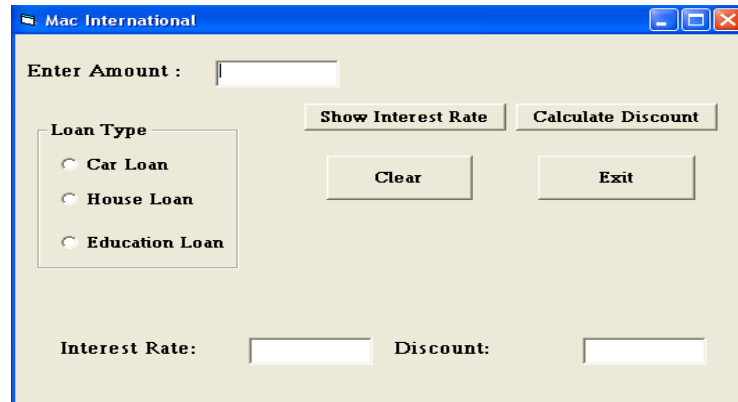f) Write command to display current date and time.   1

g) Differentiate between CHAR and VARCHAR.   1

SECTION B

Q4.

a) HSBC is a bank. The Bank provides three types of loans- Car loan, House Loan,
Education Loan.

Read the following case study and answer the questions that follow:

 Make a java swing frame as shown above and accept values through jTextFields. Perform

according to following questions:

a.   Write the commands to show the interest rate according to the following criteria.:   2
     Car loan – 10%

     House Loan – 8.5%

     Education Loan – 5%.

b. Calculate the discount on the amount according to following criteria.   4
        • If amount > 10,000,00 and < 20,000,00 then 20% discount.
        • If amount > 20,000,00 then 25 % discount.

b) Write a for loop to find sum and average of n natural numbers, odd numbers, and even numbers.   2

c) Identify errors :

    2

    (i) for(a=1,a>10,a=a+1)

    (ii)while(i<j);

```
{
        System.out.println(i*j);
        i++;
}
```

Q5.

a) Find out output of the following code: 2

```
(i)     int i,j,n;
        n=0;i=1;
        do{
                n++; i++;
          }while(i<=5);
        System.out.println(n);
```

b) Write a program using while loop to compute the sum of following series: 2

$$1+\frac{1}{4}+\frac{1}{7}+\frac{1}{10}+\frac{1}{13}+\frac{1}{16}+\frac{1}{19}+\frac{1}{22}+\frac{1}{25}$$

c) What will be the output of the following code: 2

```
int val, res, n=1000;
res = n+val>1750?400:200;
System.out.print(res);
```

    (i) if the input given for val is 1000

    (ii) if the input given for val is 500

d) Design GUI application that obtains Login ID and password and displays welcome   screen if password is correct. (Note: write down steps to create GUI)   4

SECTION C

Q6.   a) Define:

4

(i) Cardinality

(ii) View

(iii) Primary Key

(iv) Degree

b) How would you calculate 13*7/2 in MYSQL?   1

c) Write a query to create database with name MYDB. Write a query to open the same databse.   1

d) What are the commands to undo the changes and make the changes permanent?   2

e) Write a command to increase the size of empname column to 50 characters in an emp table.

2

Q. 7. Answer questions based on the table Schoolbus given below :

Schoolbus

Rtno	Area_Covered	Capacity	No_of students	Distance	Transporter	Charges
1	VasantKunj	100	100	10	Shivam Tra	100000
2	Rohini	80	80	10	Anand Tr	55000
3	Saket	50	50	30	Bhalla Co.	95000
4	Yamuna Vihar	120	120	35	Speed Tr	10000
5	Saket	100	100	20	Raj Tr.	80000
6	Janak Puri	40	40	10	Yadav Co.	60000

a)

(i)Write a query to create above table with proper Integrity constraints.   2

(ii) Display RtNo, Area_Covered and charges for all the school buses.   1

(iii)Display all the details from above table in ascending order of Area_Covered   1

(iv) Remove column Area_Covered.   2

f) Increase the charges of Yadav Co. by 1000.   1

b) Write outputs of the following queries:

(i) Select Capacity, No_of_students from Schoolbus where charges>60000;   1

(ii) Select RtNo charges/4 "Quaterly Charges" from Schoolbus;   1

(iii) Select Transporter from Schoolbus where Area_Covered like 'S%';   1