

***Instructions***

***Marks: 70***

- *All the questions are compulsory*
- *Read questions carefully before attempting*

**Q 1 Answer the following questions:**

- a) Mr. Goldy wants to prevent unauthorized access to/from his company’s local area network. Write the name of a system (Software/Hardware), which he should install to do the same. 1
- b) Name the protocol used for sending and receiving e-mails 1
- c) Explain the difference between Domain name and URL with suitable example. 1
- d) When any legitimate users is prevented from accessing or using the resources, information, or Capabilities of the system, then this situation is known as what? 1
- e) Mr. Ram is interested in transferring songs from his mobile to Mr. Shyam’s mobile. Suggest two suitable wireless options he may use for doing the same. 1
- f) Sujata says that the following numbers indicate an address: 1

**208.77.188.166**

What is the above address called? To which object/device is it assigned?

- g) Name two encoding used for Indian Language Computing 1
- h) What is openoffice .org? 1
- i) Write one point of difference between a freeware and free software? 1
- j) Name two Open Standards and two Proprietary Standards. 1

**Q 2 Answer the following questions: [10]**

- a) Which property of JLabel box is used to specify the image during design time? 1
- b) Which property would you set for setting the password character as ‘&’? 1
- c) How will you access the hidden members of super class in sub class. 1
- d) What are actual and formal parameters of methods? 1
- e) While working in NetBeans IDE, Angad wants that in the text area, the text should move to next line once it is filled width-wise and that too without breaking the word. What properties will help him do that? 1
- f) The absence of break statement in the cases of switch statement gives rise to a mechanism known as? 1
- g) By default, a combo box does not offer editing features. How would you make a combo box editable 1
- h) How one can make a Text Field un-editable on a form? 1

- i) Write a java code that takes the cost of pen from jTextField1 and number of pens from jTextField2 and calculates total amount as cost \* number to be displayed in jTextField3 and 20% service tax out of total amount in jTextField4 2

**Q 3 Answer the following questions:[10]**

- a) Which command has to be given to start using the database created by you? 1
- b) There are two table T1 and T2 in a database. Cardinality and degree of T1 are 3 and 8 respectively. Cardinality and degree of T2 are 4 and 5 respectively. What will be the degree and Cardinality of their Cartesian product? 1
- c) While creating a table "MobDet", Kavita forgot to set primary key for the table. Write the statement to set the column MobileNo as the primary key of the table. 1
- d) In a database there is a table Cabinet. The data entry operator is not able to put NULL in a column of Cabinet? What may be the possible reason(s)? 1
- e) Mr. Yash wants to implement referential integrity in the tables being created. Which constraint should be used by Yash while doing so? 1
- f) Manav created a table student in Mysql.He does not require the email\_id column available in the student table. Which command will he issue to remove the email\_id from the student table? 1
- g) What is the difference between Rollback and Commit commands. Explain with example 2
- h) There is a column C1 in a table T1. The following two statements: 1
- i. `SELECT COUNT(*) FROM T1;` and
  - ii. `SELECT COUNT(C1) from T1;`
- are giving different outputs. What may be the possible reason?
- i) Pooja, a student of class XII has created a table "FRIENDS" . Country is one of the columns of the table. She wants to see the names of all the foreigner friends. For that she has written the following query , but it is giving error . Help her by writing the correct query: 1

Select name from friends whose country is not equal to "INDIA";

**Q 4 a)** Ms Pragati works at a Recreation Park as a system analyst. She has created the following GUI. When a group arrives at the Recreation Park, the number of people in the group and whether the group wants to enjoy the Water Park or not is entered. Entry fees is < 500 per person. The person can choose to play at Water Park by selecting the checkbox. Rides of Water Park will cost 250 per person.

Help her to write code for the following :

- i. On the click of command button 'Calculate', textfield for 'Entry Fees' should display Entry Fees per person · Number of people. If 'Water Park' checkbox is selected, textfield for 'Water Park Charges' should display Water Park Charges per person · Number of people. Textfield for 'Total Amount' should display sum of Entry Fees and Water Park Charges for all the people in the group. 3
- ii. Write Java code to clear all Textboxes on the click of 'Clear' button. 1
- iii. Write Java code to close the application on the click of 'Exit' button. 1

b) Given a String Object named "SUBJECT" having values as "32000" in it. What will be the result of the following ? 1

`JOptionPane.showMessageDialog(null, ""+(SUBJECT.length() + Integer.parseInt(SUBJECT)));`

c) What will be contents of `jTextArea1` after executing the following statement? 1

`jTextArea1.setText(" Hello\n this is your pre board exam \t Sumit");`

d) What will be the output of the following statement if 21 is entered in the `jTextField1`? 1

`jTextField2.setText(Integer.toString(7 * Integer.parseInt( jTextField1.getText( ))));`

e) A phone Number , consisting of 10 digits, is stored in a string variable `strPhone`. Now it is required to store this phone number in a long type variable `lngPhone`. Write a java statement to do this. 1

f) Define a function to find the largest number among two numbers 1

**Q 5 Answer the following questions:**

(a) What will be the output of the following java code?

2

```
(i) int x, y;
    x = 5;
    y = 1;
    while (x > 0)
    {
x = x - 1;
y = y * x;
jTextArea1.append(String.valueOf(y) + "\n");
    }
```

```
(ii) int i = 0, x = 0;
for ( i = 1; i < 10; i *=2)
{
x++;
jTextArea1.setText ("\n"+String.valueOf(x));
    }
```

b) Convert the following segment into an equivalent do....while loop.

1

```
int x, c;
for( x = 10; c = 20; c > = 20; c = c - 2)
x++;
```

c) Find out the error(s), if any, in the following code fragment and rewrite the corrected code by 2 underlining the corrections made :

```
int m=5, n;
N=1;
while m>0
{
    m=m -1,
    n==n*m;
    system.out.println(n);
}
```

**Q 6 Answer the following questions:**

a) The NAME column of STUDENT table is as shown below:

b) NAME
c) SHREYANSH
d) SNEHA
e) HIMANSHU
f) FATIMA
g) JAHANVI
h) AKANSHA

Based on the above information, give the output of following queries:

1

- i. Select Name from Student Where Name like '%A' order by Name;
- ii. Select Name from Student Where Name like '%H%' order by Name;

b) Give the output of the following MySQL commands :

4

- i. Select INSTR( "THE ASSEMBLY OF GOD CHURCH SCHOOL" , "GO" );
- ii. Select CONCAT( "TINT", SUBSTR( "INDIA", -5, 2 ));
- iii. SELECT SUBSTR(TRIM(' I LOVE PROGRAMMING ')5,7);
- iv. SELECT TRIM( LEADING '# ' FROM '#####MY STRUCTURED QUERY LANGUAGE####');

c) In a database there are two tables 'LOAN' and 'BORROWER' as shown below:

2

**LOAN**

Loan_number	Branch_name	Amount
K-70	Downtown	5000
K-230	Redwood	6000
K-260	Perryridge	3700

**BORROWER**

Customer_Name	Loan_no
Jones	K-170
Smith	K-230
Hayes	K-155

- i. Identify the foreign key column in the table BORROWER.
- ii. How many rows and columns will be there in the cross join of these two tables?

d) In a database there are two tables "ITEM", and "Customer" as shown below:

3

ITEM

P_ID	ProductName	Manufacturer	Price
1001	Moisturizer	XYZ	40
1002	Sanitizer	LAC	35
1003	Bath Soap	COP	25
1004	Shampoo	TAP	95
1005	Leans Salution	COP	350

CUSTOMER

C_ID	ClientName	City	P_ID
01	Samridh Ltd	New Delhi	1002
05	Big Line	Mumbai	1005
12	97.8	New Delhi	1001
15	Tom n Jerry	Bangalore	1003

Write the commands in MySQL for the following:

- i. To display the details of items whose price is in the range of 40 and 95.
- ii. To display the Clientname, City from Customer and Item name and price from table Item, with their corresponding matching ID
- iii. To Increase the price of all the products by 50

Q 7 a) Answer the following questions:

TABLE : FAMILY

No	Name	Females	Males	Income	Occupation
1	Mishra	3	2	7000	Service
2	Gupta	4	1	50000	Business
3	Khan	6	3	8000	Mixed
4	Chaddha	2	2	25000	Business
5	Yadav	7	2	20000	Mixed
6	Joshi	3	2	14000	Service
7	Mourya	6	3	5000	Farming
8	Rao	5	2	10000	Service

- i. To show all information of family whose occupation is service. 1/2
- ii. To list the name of family where female members are more than 3. 1/2
- iii. To display family's name, number of male members and income of business family. 1/2
- iv. To count the number of families whose income is less than 10,000. 1/2
- v. **Give the output of the following MySQL statements :** 1
  - a) SELECT CONCAT('Mr.' , Name) FROM FAMILY WHERE Males>2;
  - b) SELECT MIN(Females) FROM FAMILY WHERE Occupation='Mixed';
- b) Write SQL Command to create the table "Toyz" with the following structure and constraint: 2

Table: Toyz

Column Name	Data Type(Size)	Constraints
Toy_no	Int (10)	Primary Key
Toy_name	Varchar (20)	Unique
Type	Char (10)	Can only be 'Soft Toy', 'Electronic'
Price	Decimal (8, 2)	>=1
Colour	Varchar (15)	Default Red
Stock	Int(3)	

c) A table named Bill has the following rows:

Order_Num	Cust_code	Bill_date	Bill_Amt
1	C101	2010-08-02	2300
2	C105	2010-08-02	5500
3	C099	2010-08-23	3000
4	C165	2010-09-24	6500
5	C105	2010-09-24	1400

Write the output that will be displayed due to last SQL select statement:

2

Mysql>start transaction;

Mysql>insert into bill values(7, 'C101', '2010-09-02', 5000);

Mysql>update bill set bill\_amt = bill\_amt +500 where order\_num =3;

Mysql> savepoint a;

Mysql>insert into bill values(8, 'C97', '2010-09-03', 4500);

Mysql> delete from bill where cust\_code= 'C105';

Mysql>rollback to a;

Mysql>select\*from bill;

d) Consider the tables DOCTORS and PATIENTS given below:

3

### DOCTORS

Doc ID	Doc name	Department	OPD days
201	Ankur	ENT	TTS
202	Anil	Paed	MWF
203	Neeraj	Ortho	MWF

### PATIENTS

Pat	Pat name	Department	Doc ID
11	Naveen	ENT	201
12	Mohit	Ortho	203
13	Ranjeet	ENT	201
14	Mohan	Paed	202
15	Navni	Ortho	203

With reference to these labels, write commands in SQL for (i) and (ii) and output for (iii) below :

- i. Display the PatNo, patname and corresponding Docname for each patient .
- ii. Display the list of all patients Whose OPD\_days are MWF.
- iii. SELECT OPD \_days, COUNT(\*) FROM DOCTORS, PATIENTS WHERE Patients. Department = Doctors. Department group by OPD\_days;

**d) Answer the following questions:**

- i. Define e-Business. Explain its benefits to Customer and Business and also Name one popularly used e-Business website. 2
- ii. How does e-governance help in reducing corruption. Write two points. 1
- iii. Suruchi works for a Shopping Mart. She wants to create controls on a form for the following operations :  
Choose most appropriate controls out of Text Box, Label, Radio Button, List Box, combo Box, Check Box and Command Button. 2

<b>S. No</b>	<b>Function</b>	<b>Control Name</b>
1	Enter the Item Code	
2	Select Item Size (from list of sizes)	
3	Enter Quantity	
4	Submit the form	