



```
System.out.print(""+a+","+b);
```

(c) Write a method in Java that takes an year (4-digit) and return *true* if year is leap, otherwise *false*. (2)

(d) Write HTML code to draw the following table: (2)

AREA	SALE AMOUNT (KIDS/GENTS)	
	2016	2017
NORTH	20	50
	25	55

OR

(d) Dev, a website designer with “Creative Designers Pvt. Ltd.” has written the following code. Observe the code given below and answer the following questions:

```
<company>
  <employee eid=1>
    <name>Albert</name>
    <dept deptid="d1">Computer</dept>
  </employee>
  <employee eid=2>
    <name>Manisha</name>
    <dept deptid="d2">Accounts</dept>
  </employee>
</company>
```

- Are these tags part of HTML code or XML code?
- Identify the root element.
- Mention any two child elements.
- Mention any two attributes

(e) While working in NetBeans, Ms Khorana wants to display ‘Correct password’ or ‘Wrong password’ message depending on the password entered in jPasswordField. Help her to choose the more appropriate statement out of ‘if statement’ and ‘switch statement’. Justify your answer also. (1+1=2)

(f) How will you access the hidden members of super class in sub class. (1)

(g) Study the following code and answer the questions that follow: (2)

```
public class Example extends javax.swing.JFrame
{
  /** Creates new form named Example */
  public Example()
  {
    initComponents();
  }
}
```

- Which feature of object oriented programming is depicted above?
- Name the base class and the derived class.

Q3.(a) What will be the output of **SELECT 25 + 10/5 + NULL + 41;** (1)

(b) Write any two ways to give comment lines in MySQL. (1)

(c) Avani has created a table named “Doctor”, she wants to increase the OPDCharge by 25% of “Nephro” and “Cardio” department. She wrote a query- (2)

```
UPDATE Nephro,Cardio SET OPDCharge=25% WHERE department IN ('Nephro', 'Cardio');
```

Help Avani to run the query by removing the errors from the query and write corrected query.

- (d) Abhi wants that changes made during the transaction execution should not save unless he himself save it. Which command that Abhi should use for this purpose? (1)
- (e) What is the role of UNIQUE constraint? How is PRIMARY KEY constraint different from UNIQUE constraint? (2)
- (f) Write any two properties of transactions. (1)
- (g) Write the purpose of inserting Savepoints in a transaction. (1)
- (h) 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)

Q4. (a) What is method overriding? (1)

**OR**

- (a) What is the use of keyword **implements** in java? (1)
- (b) Which method of JLabel box is used to specify the image during run time? (1)

**OR**

- (b) Name any one overloaded built in method available in java. (1)
- (c) What is the difference between setEditable() and isEditable() methods of a control? (1)

**OR**

- (c) Prachi is working with following swing controls: **JButton, JLabel, JTextField, JCheckBox**  
Suggest her any two basic methods commonly available with all the four controls mentioned above.

(d) Rewrite the following code using if ..else (2)

```
switch(ch)
{
case 'a':
case 'A':
case 'e':
case 'E':
case 'i':
case 'I':
case 'o':
case 'O':
case 'u':
case 'U': ++v;
break;
default: others++;
}
```

(e) The following code has some error(s). Rewrite the correct code underlining all the corrections made. (2)

```
int i,c,a=5,b=0;
for(i=0;i=<20;i=+1)
if b==0
break;
else
c=a/b;
System.out.setText("Quotient"+c);
```

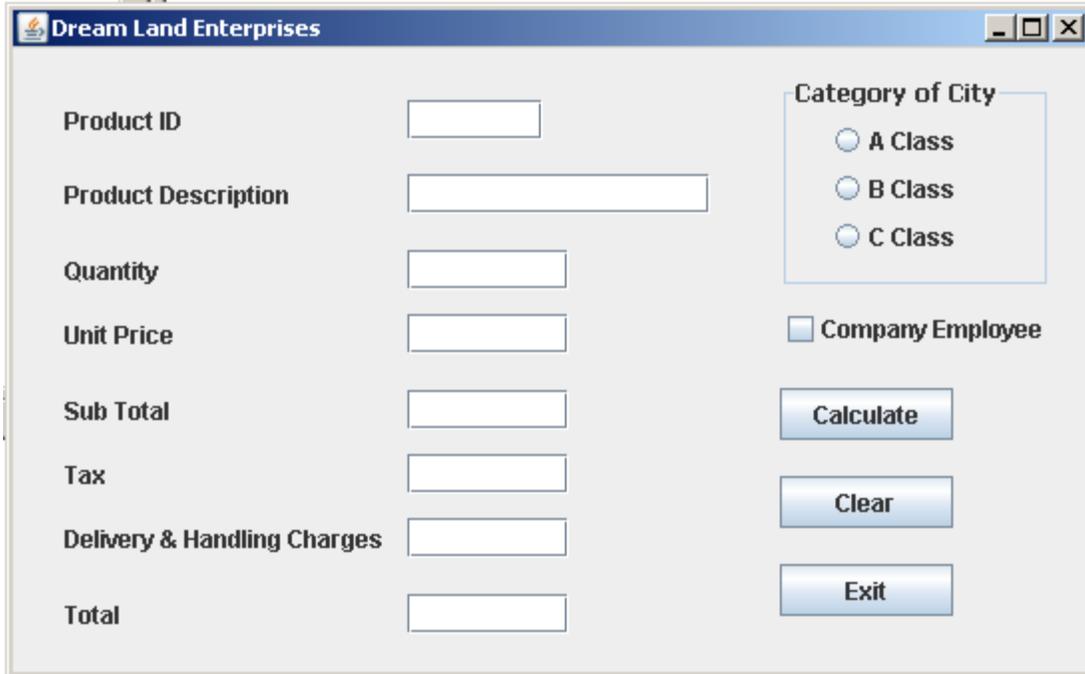
**OR**

(e) The following code has error(s). Rewrite the correct code underlining all the corrections made :

```
string str1 = SeemaSurakshabal ;
for(int b = 0 ; b < 3 , b++ )
```

```
{
jTextArea1.showText(str1 );
str1 = str1 + b ;
}
```

(f) Dream Land Enterprises has computerized its billing. The following data entry screen is used to generate bill. (2+3+1=6)



The criteria for calculation of delivery and handling charges is as given below:

Category of City	Delivery & Handling Charges
A Class	Rs. 3500
B Class	Rs. 4000
C Class	Rs. 4500

(i) Write the code to make the text fields **txtSubTotal**, **txtTax**, **txtDelHanCh** and **txtTotal** non editable and set the category of city as **C class**.

(ii) Write code to do the following-

Write the code for **Calculate** button to calculate and display Sub Total, Tax, Delivery & Handling Charges and Total depending on the category of the city.

- Sub Total is calculated as **Unit Price \* Quantity**.
- Tax is calculated as 7.85% of Sub Total

Total is calculates as the sum of Sub Total, Tax and Delivery and Handling Charges. If Company Employee check box is checked then tax should be 2.5% of Sub Total.

(iii) When **Clear** button is clicked all the text boxes, radio buttons & checkbox should clear.

Q5. (a) Giving suitable example explain the need of GROUP BY clause in SELECT query. (2)

(b) Write the output of the following queries. (2)

(i) SELECT TRIM(Both '###' FROM '#####IP IS JAVA#####');

(ii) Select substr(right('School name is St paul convent school', length('School')+length('name')+4),9);

- (c) Consider the table given below, write command in SQL for (i) to (iv) and output for (v) to (viii). (4+0.5x4=6)

Table : **STUDENT**

No	Name	Stipend	Stream	AvgMark	Grade	ClassSec
1	Karan	800	Medical	67.8	C	11D
2	Vishu	1500	Commerce	82.6	B	12B
3	Prabhat	2000	Humanities	85.7	B	12J
4	Selina	700	Medical	88.9	A	11C
5	Vinod	900	Science	65.9	C	11D
6	KARAN	1200	Medical	68.6	D	12J

- (i) To display the name and stream of all students who are in class 12.  
(ii) To display the different Streams available for students.  
(iii) To display name, avgmarks and grade in ascending order of grade.  
(iv) To display names of those students whose grade and section are same.  
(v) `SELECT Stipend+500 FROM Student WHERE stream LIKE '%ma%';`  
(vi) `SELECT COUNT(*) FROM Student WHERE grade='C' OR stipend =800;`  
(vii) `SELECT ClassSec FROM Student WHERE Avgmark>68 && stream='Medical';`  
(viii) `SELECT AVG(stipend) FROM Student WHERE name='KARAN';`

- Q6(a) Write an SQL query to create the table “**Club**“ with the following structure- (2)

Field	Type	Constraint
CoachId	Integer(6)	Primary Key
CoachName	Varchar(25)	Not NULL
Age	Integer(3)	Must be more than 35
Sports	Varchar(20)	
Pay	Integer(8)	Refers <b>Salary</b> from <b>Club_Master</b> table
Sex	Char(1)	

OR

- (a) Write an SQL command for creating a table **Teacher** whose structure is given below:

FIELD NAME	DATATYPE	SIZE	CONSTRAINT
Tno	Number	3	Part of Primary Key
Class	Varchar	5	Part of Primary Key
Age	Number	5,2	>22 and <=40
Projno	Number	6	FK –Project(pno)
Address	Varchar	30	Default Mumbai

- (b) In a database there are two tables ‘**Doctors**’ and ‘**Patients**’ shown below- (1+1=2)

Table: **Doctors**

DocId	DName	OPDDays	Timing
D521	R. K. Sinha	Monday	10 am
D324	V. K.Singha	Wednesday	9 am
D945	P. Kumar	Friday	12 pm
D457	V. Prasad	Saturday	10 am
D125	K. Krishna	Tuesday	11 am
D220	M. Kumar	Monday	12 pm

Table: **Patients**

PId	Name	Age	Dept	DateOfAdm	Charges	Gender	Did
115	Jugal	36	Nephro	2005-12-15	260	M	D324
621	Smita	45	Cardiology	2007-07-20	450	F	D945
451	Reena	14	ENT	Null	Null	F	D457
136	Kishore	64	Surgery	2001-08-28	850	M	D521

(i) Name the column(s) that can be used to retrieve data from both the tables.

**OR**

(i) What will be the cardinality and degree if Natural Join is performed on these tables.

(ii) Which column can be considered as foreign key in Patients table?

**OR**

(ii) What can be data type of Did column in Patients table.

(c) Consider the tables given below-

(2 x 3 =6)

**Table : Staff**

StaffId	Name	Dept	Gender	Experience
1125	Noopur	Sales	F	12
1263	Kartik	Finance	M	6
1452	Palak	Research	F	3
236	Nayan	Sales	M	8
366	Anvashan	Finance	M	10
321	Sawan	Sales	M	7

**Table : Salary**

StaffId	Basic	Allowance	CommPer
1125	14000	1500	9
1263	25000	2800	6
236	13500	1400	5
321	12000	1500	5
366	26100	3100	12

With reference to above tables, write commands in SQL for (i) and (ii) and output for (iii)-

(i) To display name of all the staff that are in Sales having more than 9 years' experience and commission percentage is more than 8.

(ii) To display average salary of staff working in Finance department.

**(Salary=Basic+allowance)**

(iii) SELECT name, Basic from Staff, Salary WHERE Dept='Sales' and Staff.StaffId=Salary.StaffId;

Q7. (a) Give two social impacts of E-Business. (1)

(b) Define the term ICT. (1)

(c) How is back end linked to a database and a server? (1)

(d) Vijayan works for customs department. He wishes to create controls on a JFrame form for the following functions. Choose appropriate controls from Text field, Label, Option button, Check box, List box, Combo box, Button and write in the third column. (2)

S. No	Control used to	Control
1	Display headings	
2	Enter gender	
3	Choose city from list of cities	
4	Save data	