



- d) What are the advantages of using a DBMS? 2M  
 e) Define ROUND() and TRUNCATE() function with example? 2M  
 f) Define the function CONCAT()? 2M  
 g) What is database? 1M

Section – B

Q4- Answer the following questions :

- a) Differentiate between syntax error and logical error? Explain with suitable example? 2M  
 b) What is JFrame? 1M  
 c) What is Casting? When do we need it? 2M  
 d) What are the container or container controls? 2M  
 e) Write Java statement to accomplish each of the following tasks : 3M  
 (i) Declare variables sum and a to be of type int.  
 (ii) Assign 1 to variable a  
 (iii) Add variable a to variable sum and assign the results to variable sum.

Q5- Answer the following questions :

- a) What will the output of following code fragment if the value of ch is : 2M  
 (i)a (ii) c (iii) d (iv) h

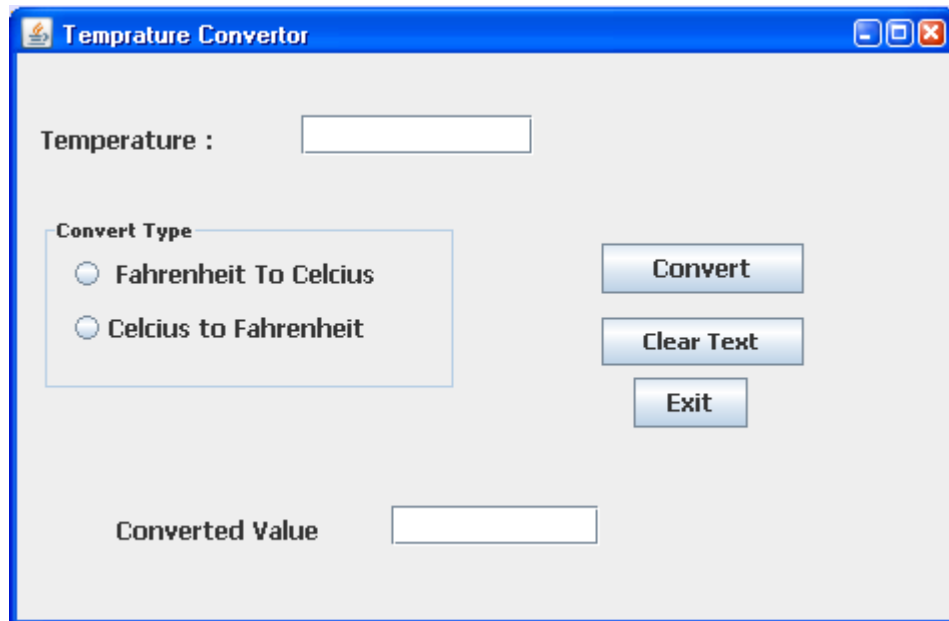
Switch(ch)

```
{
    case 'a' : System.out.println("It is a.");
    case 'b' : System.out.println("It is b.");
    case 'c' : System.out.println("It is c."); break;
case 'd' : System.out.println("It is d."); break;
    default : System.out.println(" Not a, b, c, d); break;
}
```

- b) Create a Java Desktop Application to convert a given temperature Fahrenheit to Celsius and Vice Versa using switch case statement.  
 Hints :  $C = \frac{5}{9} * (F - 32)$  and  $F = 1.8 * (C + 32)$   
 Using a JButton's click event handler, display the corresponding temperature value in a JTextField control. Implement the following settings for IDE :

Controls	Property Name	Property Value
JRadioButton1	Text buttonGroup	Fahrenheit to Celcius buttonGroup1
JRadioButton2	Text	Celcius to Fahrenheit

	buttonGroup	buttonGroup1
JTextField1	Text Variable Name	txtTemp
JTextField2	Text Variable Name	txtCon
JButton1	Text Variable Name	Convert btnDisc
JButton2	Text Variable Name	Clear the text btnClear
JButton3	Text Variable Name	Exit btnExit



- (i) On the Action event of the *Clear button* the text fields and radio buttons get clear. 2M
- (ii) On the Action event of the *Exit button* the application gets closed. 2M
- (iii) On the Action event of the button "*Convert*" the temperature is converted as per user choice. 3M

c) Rewrite the following code using while loop : 2M

```
int sum=0;
for(int i=1; i<=5;i++)
{
sum=sum+i;
}
```

d) Rewrite the correct code after removing the syntax errors if any in the following code : 2M

```
if(sex==1)
JLabel1.setText("Women");
else;
jLabel1.setText("Man");
```

e) Consider the following program code and tell how many time the loop will execute : 2M

```
int x=5, y=50;
while(x<=y)
```

```

{
y=y/x;
x=x+5;
}

```

### Section-C

**Q6- Answer the following questions :**

- (a) Write the difference between Primary Key and Unique Key? 2M  
 (b) You have the following table CUSTOMER. Identify the required data types for each attributes : 2M

<b>Cust_ID</b>	Customer Identification Number
<b>Cust_Name</b>	Customer Name
<b>Cust_Add</b>	Customer Address
<b>Bill_No</b>	Customer bill Number

- (c) Create a table name as Deptm with the following structure : 2M

Field Name	Field Type	Constraint
<b>DEPTNO</b>	Integer	<b>NOT NULL PRIMARY KEY</b>
<b>DNAME</b>	Varchar(14)	<b>NOT NULL</b>
<b>LOC</b>	Varchar(13)	
<b>Salary</b>	Integer(5)	

- (d) Write a SQL command to add following column in above table. 1M

Column Name	Data Type	Size	Constraint	Description
<b>Address</b>	Varchar	40		Address of the Person

- (e) Write SQL Commands for the questions form (a) to (h) on the basis of table Teacher. [7 X 1M]

Table : Teacher

No.	Name	Age	Department	Dateojjoin	Salary	Sex
1	Jugal	34	Computer	2007-02-10	12000	M
2	Shanti	31	History	2008-03-24	20000	F
3	Sandeep	32	Maths	2009-02-25	14000	M
4	Sangeeta	45	History	2007-04-15	20000	F
5	Rakesh	35	Computer	2007-05-17	21000	M

- (i) To show all information about the teacher of History department in descending order of their name .
- (ii) To list the male teacher who are in Maths department.
- (iii) To display Name, Salary, Age of all male teacher.
- (iv) Update the Salary by increasing Rs. 1000 for female teacher.
- (v) To Insert a new record in table Teacher with the following data :  
9, 'Raja', 23, 'Hindi', '2005-08-19',12675, 'M'
- (vi) Display the name of those teacher whose name started with alphabet 'S';
- (vii) To Delete those records where Department is History.
- (viii) Write SQL Command to drop the table Teacher.

(f) Find the Output of following :

[5 X 1M]

- (i) `SELECT ROUND (1.298,1);`
- (ii) `SELECT POW(3,4);`
- (iii) `SELECT LOWER('MYSQL QUERY LANGUAGE');`
- (iv) `SELECT SUBSTR('MYSQL LANGUAGE', 7,8);`
- (v) `SELECT LENGTH('INFORMATION');`