INFORMATICS PRACTICES HOLIDAY HOMEWORK – CLASS XII

1.Output and Code Rewriting Questions

Q.1. Write the output of the following code:
```
int x,y=0;
for(x=1; x<=5; ++x)
        y=x++; --y;
```

Q.2. Write the output of the following code
```
int f=1,i=2;
do
{ f*=i; }while(++i<5);
System.out.println(f);
```

Q.3. What will be the value of j and k after execution of the following code:
```
int j=10,k=12;
if(k>=j)
{ k=j; j=k; }
```

Q.4. How many times ,the following loop gets executed?
```
i=0;
while(i>20)
{ //statements };
```

Q.5 What will be the contents of TextField after executing the following statement:
```
int num=4;
num=num+1;
if(num>5)
        jTextField1.setText(Integer.toString(num));
else
        jTextField1.setText(Integer.toString(num*4));
```

Q.6. What will be the content of the jTextArea1 after executing the following code?
```
int num=1;
do {
        jTextArea1.setText(Integer.to String(++num)+"\n"); num=num+1;
    }while(num<=10);
```

Q.7 What will be the values of x and y after executing the following expressions.
```
int x=20,y=35;
x= y++ + x++;
y= ++y + ++x;
```

Q.8 Rewrite the following program code using a for loop:
```
int I,sum=0;
while(I<10)
{ sum+=  I ; I+=2; }
```

Q.9 Write a equivalent while loop for the following code:

```
        int sz=25;
        for(int i=0,sum=0;i<sz;i++)
                sum+=I;
        System.out.println(sum);
```

Q 10. Rewrite the code using switch statement:
```
        if(k==1) day="Monday";
        else if(k==2) day="Tuesday";
        else if (k==3) day="Wednesday";
        else day="-";
```

Q 11. What will be the output of the program?
```
        final static short x = 2;
        for (int z=0; z < 3; z++)
        {
                switch (z)
                {
                        case x: System.out.print("0 ");
                        case x-1: System.out.print("1 ");
                        case x-2: System.out.print("2 ");
                }
        }
```
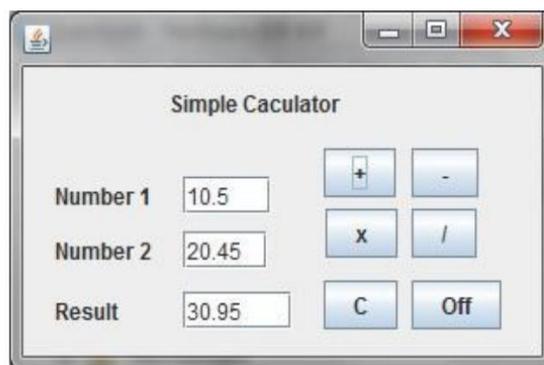
2.Rapid Application Development Problems

Ques 1.

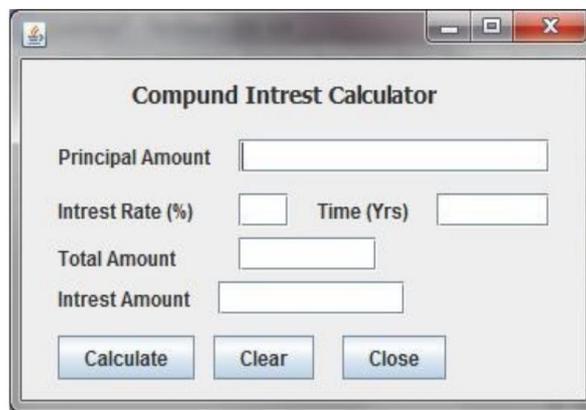**Objective** : Understanding the use of variables and data types.

Task : Develop a simple Calculator application as per given screen snapshot, to implement +, -, x and / operations. The text box gets cleared when 'C' button is clicked.

Ques 2.

Objective : Understanding the real life application requirement and developing a solution.

Task : Develop a Compound Internet Calculator application as per given screen snapshot, to calculate total amount for given amount, rate and time using $A=P(1+R/100)^T$ and $I=A-P$.
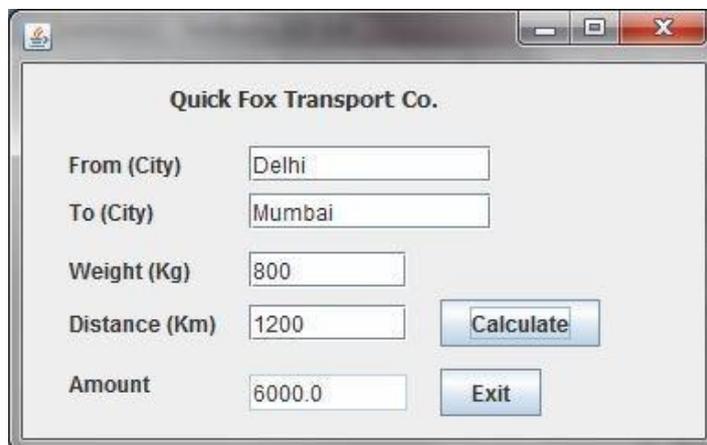
Compund Intrest Calculator

Principal Amount

Intrest Rate (%)   Time (Yrs)

Total Amount

Intrest Amount

Calculate   Clear   Close

Ques 3

Objective : Understanding Nested conditions in the real life applications.

Task : A Quick Transport Company wants to develop an application for calculating amount based on distance and weight of goods. The charges or amount to be calculated as per given rates.
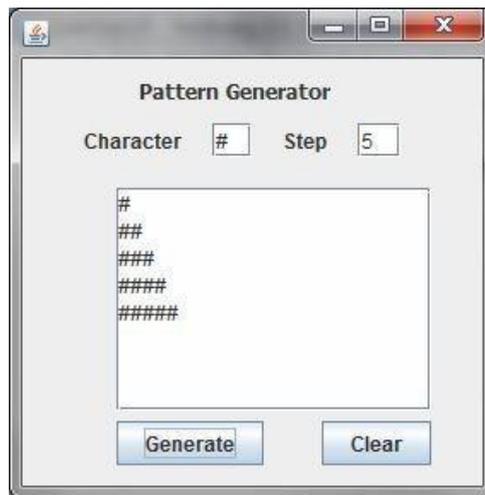
Distance	Weight	Charges Per Km
>=500 Km	>=100 kg	Rs 5
	>=10 kg and <100 kg	Rs 6
	<10 kg	Rs 7
< 500 Km	>=100 kg	Rs 8
	<100 kg	Rs 5

Quick Fox Transport Co.

From (City)   Delhi

To (City)   Mumbai

Weight (Kg)   800

Distance (Km)   1200   Calculate

Amount   6000.0   Exit

Ques 4.

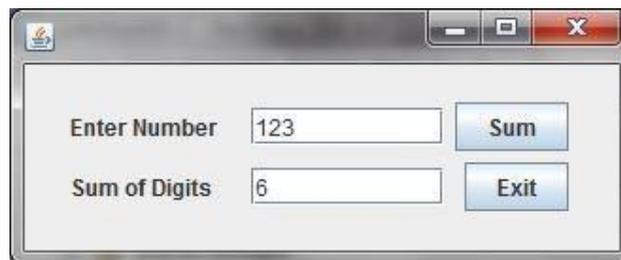**Objective** : Understanding the use of Nested loops

Task : Develop a Java application to print a pattern for given character and steps as per given screenshot

Ques 5.

Objective : Understanding the use of loops and mathematical operations

Task : Develop an application to compute the sum of digits of a given no .

3.Previous Year Question Papers

SOLVE 2 question papers from previous years given in the book.

(This is for your enhanced understanding of the format of Board Examination beforehand. Find the answers for all previous year question papers and record them as a part of your homework. Special attention to be paid to the topics already covered in class)