inal Examination in **INFORMATICS PRACTICES**

Std. 11 M. Marks : 70

28-2-2017 Time : 3 hrs.

Roll No: | | |

Total printed pages : 04

1. Difference between (write any two):- [12]
   a) jRadioButton and jCheckBox controls
   b) switch – case and if – else
   c) Conditional Operator and if-else statement
   d) Non GUI output method and GUI output method
   e) setText() and getText()
   f) + operator and ++ operator

2. Write coding to :- [5]
   a) Change the Background color of jTextField5 to BLUE
   b) Change the Font of jLabel3 (font name to "Tahoma", style to BOLD and size to 16)
   c) Change the value of jRadioButton2 to false
   d) Make jTextField4 un-editable
   e) Make jTextArea1 disabled

3. Write answers for the following :
   a) Explain the use of methods given below with examples. [2]
      i) isEditable() ii) setEditable()
   b) What do you mean by fall through? [1]
   c) What is the significance of default in switch case? Is it compulsory to write default? [1]
   d) Name the operator that works on three operands. [½]
   e) Name the datatype if you want to store the value false in a variable. [½]
   f) Name one invisible control and its use. [1]
   g) Rakshita works for a school. She wishes to create controls on a form for the following functions. Choose appropriate controls from Text field, Label, radio button, Check box and Button and write in the third column. [2]

S. No	Control used to	Control Name
1	Enter Admission Number	
2	Select any one stream (Arts, Commerce or Science)	
3	Select any five Subjects from the list given	
4	Clear the value of all controls	

4. Write output of the following :-

a) [3]

```
switch( section )
{   case 'A' :   jTextField2.setText( "Medical");

    case 'B' :
    case 'C' :  jTextField2.setText( "Non-Medical");
                break;
    case 'D' :
    case 'E' :  jTextField2.setText( "Commerce");
                break;
    case 'F' :  jTextField2.setText( "Arts");
    default :    jTextField2.setText( "Not a valid section");
 }
```

What will be the output if the value of variable section is :

i) A ii) D iii) F iv) H

b) [1½]

```
int year  = Integer.parseInt( jTextField1.getText() );
if (year % 100 ==0)

{

if (year % 400 == 0)

System.out.println("leap");

}

else

System.out.println("Not Century year");
```

if the input given is :

i) 2000 ii) 2100 iii) 2016

c) [1½]

```
String S1="DJ-Xavier-Fair#2017";
System.out.print(S1.charAt(14));
System.out.print(S1.charAt(8));
```

```
System.out.print(S1.charAt(1));
```

d) [2]

```
int A =5  , B =10;
System.out.println(A++ );
System.out.println( - - B );
System.out.println( A - - );
System.out.println( ++B );
```

e) Find out the value of variable a in both the following cases. [2]

i)
```
x=0,  y=14;
if( !(y > x))
{ a=2;
 }
 else
{ a=6;
  }
```

ii)
```
if(6 > 7 ||  8 > 7)
{  a=10;
  }
else
  {   a=20;
    }
```

5. Convert the following :-

a) If .. else to conditional operator [2]

```
int age = Integer.parseInt(jTextField1.getText());
System.out.println( age>=13 && age<=17 ? "Senior School" : "Not in Senior School");
```

b) Switch case to multiple if..else [3]

```
String S1 = jTextField1.getText();

char section = S1.charAt(0);

switch( section )

{   case 'A' :   jTextField2.setText( "Medical");

                  break;
    case 'B' :
    case 'C' :  jTextField2.setText( "Non-Medical");
                 break;
    case 'D' :
```

```
        case 'E' :  jTextField2.setText( "Commerce");
                    break;
        case 'F' :  jTextField2.setText( "Arts");
                    break;
        default :   jTextField2.setText( "Not a valid section");
      }
```

6. Find errors in the following programs :-

a) [3]

```
double D =  Double.parseDouble(  jTextField.getText() );
switch( D ) ;

{
      case  1   :   System.out.println (" It is a .");   break;
      case  5.2 :   System.out.println ("It is b.");    break;
      case  1   :   System.out.println ("It is c.");    break;
      case  7   :   System.out.println ("It is d.");     break;
      Default   :   jTextArea1.Append("not a b c d");
}
```

b) [2]

```
Int i, j=5;
i==j+5;
if(i=j) ;
{       jTextField1.setText("i and j are unequal");
       jTextField2.setText("they are not equal");
}
else    jTextField1.setText("i and j are equal")
```

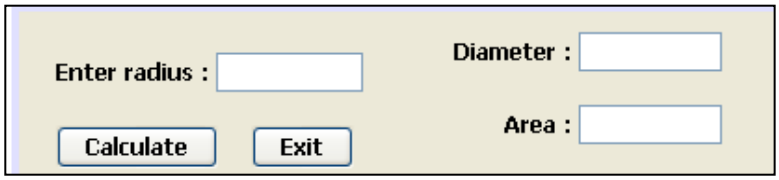
7. Write coding to check the radius entered by user. If the radius is <=0 print message "Circle cannot be formed" otherwise print the message "Circle can be formed" using conditional operator (? :) in output window. [3]

Also calculate its diameter and Area as given below on click of jButton1 (Calculate):

Diameter = 2 * radius

Area = 3.141 * radius* radius

Write coding for jButton2 (exit) also.
[1]



8. Write coding for jButton1 (calculate) to Calculate Income tax, Educational tax, surcharge, Total tax and Net Payable income from values entered in jTextFields. [5]

Income tax = 15% of taxable income

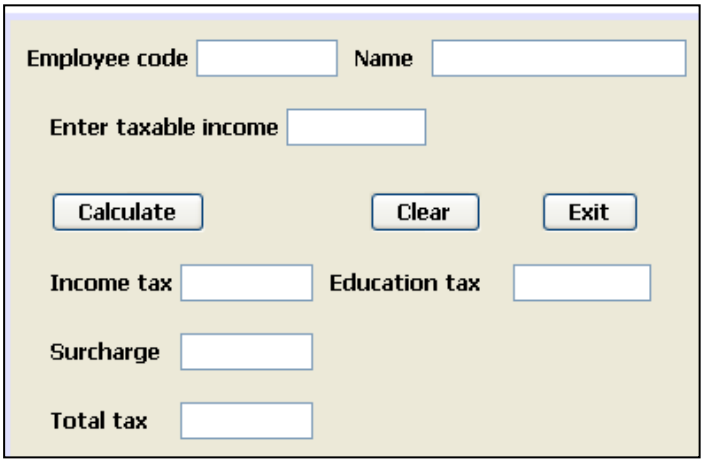
Educational tax = 10% of taxable income

Surcharge = 5% of taxable income

Total tax = Income tax + Educational tax + surcharge

Net Payable income = taxable income + Income tax + Educational tax + surcharge

Write coding for jButton2 (Clear) to clear all the jTextFields. [1]

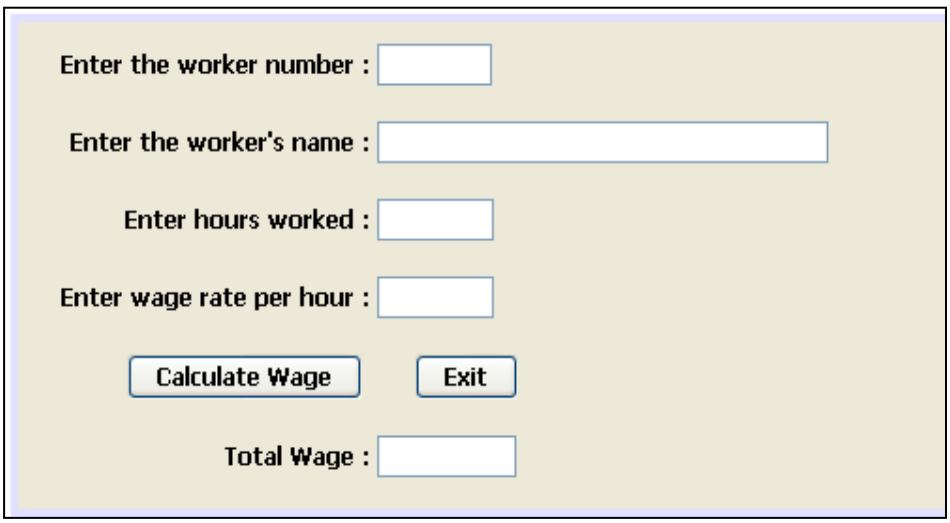


9. Write coding for jButton1 to calculate Total Wage [4]

Total Wage = Hours worked * Wage per rate

Calculate Net Wage based on the following conditions and display it in a **dialog box**.

Total Wage	Tax
>=10000	20%
>=5000	10%
>=1000	5%
<1000	0

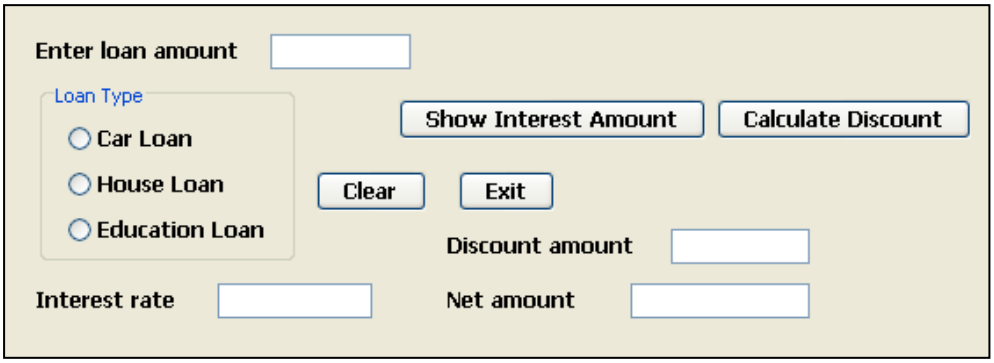


10. Write coding for (only the button specified below):-

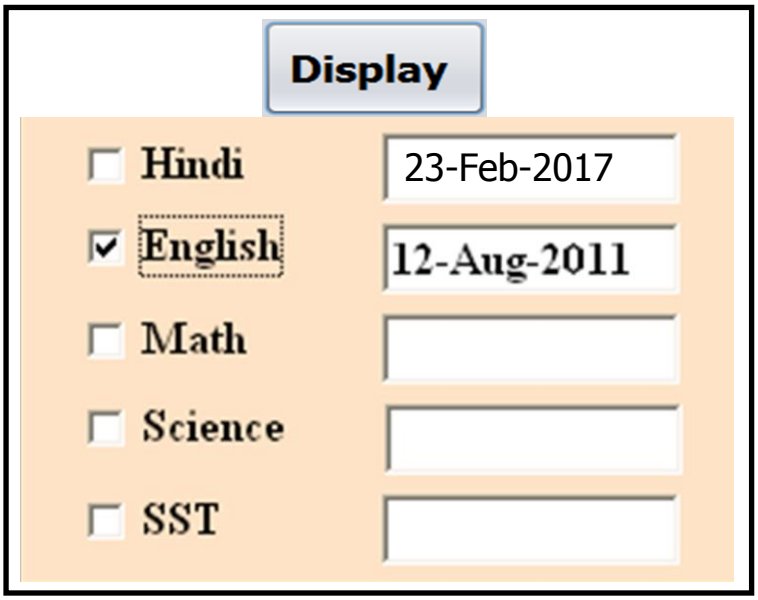
- jButton1 (Show Interest Amount) to display the interest rate which is 10% of loan amount in respective jTextField. [1]
- jButton2 (Calculate Discount) to calculate discount given on loan amount based on the selected jRadioButtons (loan type) as shown below:- [3]

Loan Type	**Discount**
Car Loan	10%
House Loan	8%
Education Loan	5%

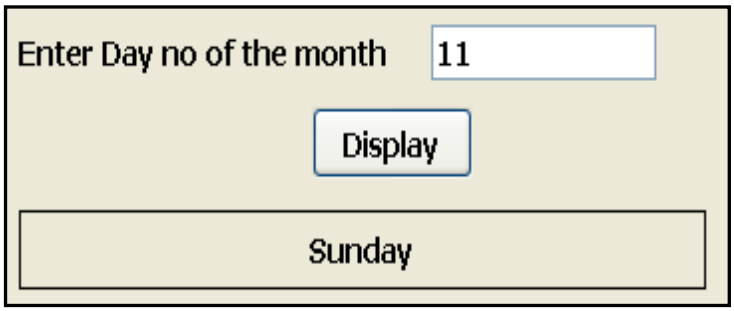
Net Amount = Loan Amount + Interest Rate – Discount Amount



11. Write coding for jButton1 to display final exam dates for selected jCheckBoxes. [3]



12. In a particular month 4, 11, 18 and 25 are Sundays. 15 and 26 are restricted holidays. Write a program to input the day no in jTextField1 and determine whether it is a Sunday, restricted holiday or a working day. (using switch .. case) [4]



-x-x-x-x-x-x-x-