



# St. Xavier's Sr. Sec. School

Delhi-54

Final 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) jButton 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 jButton2 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	



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4. Write output of the following :-

a) `switch( section )` [3]

```
{ 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) `int year = Integer.parseInt( jTextField1.getText() );`  
[1½]  
`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) `String S1="DJ-Xavier-Fair#2017";`  
[1½]  
`System.out.print(S1.charAt(14));`  
`System.out.print(S1.charAt(8));`



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

d) `int A =5 , B =10;` [2]  
`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) <code>x=0, y=14;</code> <code>if( !(y &gt; x))</code>  <code>{ a=2;</code>  <code>}</code>  <code>else</code>  <code>{ a=6;</code>  <code>}</code>	ii) <code>if(6 &gt; 7    8 &gt; 7)</code> <code>{ a=10;</code>  <code>}</code>  <code>else</code>  <code>{ a=20;</code>  <code>}</code>
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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' :`



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

[3]

```
{
    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 : jTextField1.append("not a b c d");
}
```

b) Int i, j=5;

[2]

```
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")
```



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7. Write coding to check the radius entered by user. If the radius is  $\leq 0$  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):

$$\text{Diameter} = 2 * \text{radius}$$

$$\text{Area} = 3.141 * \text{radius} * \text{radius}$$

Write coding for jButton2 (exit ) also.

[1]

Enter radius : <input type="text"/>	Diameter : <input type="text"/>
<input type="button" value="Calculate"/> <input type="button" value="Exit"/>	Area : <input type="text"/>

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

$$\text{Income tax} = 15\% \text{ of taxable income}$$

$$\text{Educational tax} = 10\% \text{ of taxable income}$$

$$\text{Surcharge} = 5\% \text{ of taxable income}$$

$$\text{Total tax} = \text{Income tax} + \text{Educational tax} + \text{surcharge}$$

$$\text{Net Payable income} = \text{taxable income} + \text{Income tax} + \text{Educational tax} + \text{surcharge}$$

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



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Employee code	<input type="text"/>	Name	<input type="text"/>
Enter taxable income	<input type="text"/>		
<input type="button" value="Calculate"/>	<input type="button" value="Clear"/>	<input type="button" value="Exit"/>	
Income tax	<input type="text"/>	Education tax	<input type="text"/>
Surcharge	<input type="text"/>		
Total tax	<input type="text"/>		

9. Write coding for jButton1 to calculate Total Wage

[4]

$$\text{Total Wage} = \text{Hours worked} * \text{Wage per rate}$$

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

<u>Total Wage</u>	<u>Tax</u>
$\geq 10000$	20%
$\geq 5000$	10%
$\geq 1000$	5%
$< 1000$	0

Enter the worker number :	<input type="text"/>
Enter the worker's name :	<input type="text"/>
Enter hours worked :	<input type="text"/>
Enter wage rate per hour :	<input type="text"/>
<input type="button" value="Calculate Wage"/>	<input type="button" value="Exit"/>
Total Wage :	<input type="text"/>



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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]

<u>Loan Type</u>	<u>Discount</u>
Car Loan	10%
House Loan	8%
Education Loan	5%

Net Amount = Loan Amount + Interest Rate – Discount Amount

Enter loan amount

Loan Type

Car Loan

House Loan

Education Loan

Discount amount

Interest rate  Net amount

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

Hindi

English

Math

Science

SST



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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]

Enter Day no of the month	<input type="text" value="11"/>
<input type="button" value="Display"/>	
<input type="text" value="Sunday"/>	

-X-X-X-X-X-X-