CBSE Class 11th Informatics Practices (Theory)
Half Yearly Examination Set-A 2016-2017
Indraprastha International School

General Instructions

- This question paper contains 9 questions.
- Write the answers neatly and legibly.
- All questions are compulsory.

1. **Answer the following questions:-**
   a. What do you mean by Utility Software? Give two examples. (1)
   b. Why are Device Drivers used ? (1)
   c. How is MICR different from OMR? (1)
   d. What does a BUS mean? Explain any one of them. (1)
   e. What is the difference between Multiprocessing and Real Time Operating System? (1)

2.
   a. What is a cookie? (1)
   b. What is cybercrime? Name the Cyber Act in India. (1)
   c. Differentiate between worms and viruses. (1)
   d. Compare Digital Signature & Digital Certificate. (1)
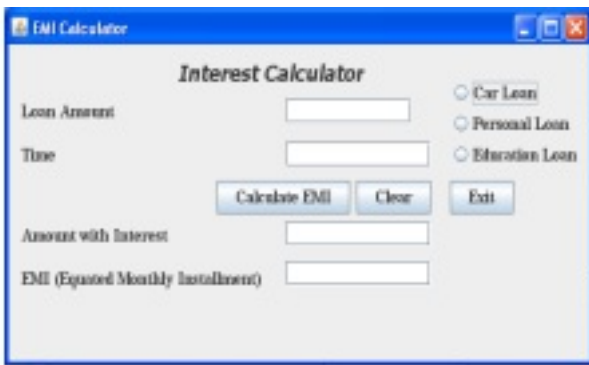   e. Differentiate between Compiler and Interpreter. (1)

3.
   a. Given the following code fragment, write the output: (2)

      int c = 10;
      System.out.println(c++);
      System.out.println(++c);
      System.out.println(c);

   b. What is the difference between setText( ) and getText( ) methods? Explain with the help of an example. (2)
   c. What is the difference between A=10 and A==10 statements? (2)
   d. How is pre-tested loop different from post-tested loop? Give an example. (2)
   e. Shivanshi has to prepare the application to calculate the result. A student gets

scholarship, if he/she scores marks above 90%. Which selection construct out of if..else and switch should be used? Write the code and justify your answer. (3)

4. Create a Java application to calculate the Interest using given screenshot on the basis of the following criteria:

an Type	Rate of Interest
Car Loan	13%
Personal Loan	16%
Education Loan	8%

Write the code for the following:

a. Calculate the Simple Interest and EMI and display in the respective text fields. Simple Interest = (Principle x Rate of Interest x Time)/100 ,Amount = Principle + Interest EMI = Amount / Time in months (3)

b. Set Education loan as default option and disable the command button 'Calculate EMI'. (2)

c. Write the code to clear all the text fields. (2)

d. Write code to close the window. (1)

5.

   a. **What will the following java statements do? (5)**

      i. Double.parseDouble(jTextField1.getText());

      ii. jTextArea.setText("CBSE +\n+Delhi");

      iii. String name=("Ram")+("Sharma");

      iv. Int y = Integer.parseInt(jTextField5.getText());

      v. jTextsetText("Hello");

b. **Write the program:-**
  i. To calculate the factorial of a given no. (4)
  ii. To print the Fibonacci Series upto the limit entered by the user. (4)

6.

a. **What will be the output of the following code segment: (2)**

```
int J = 1,I;
for (I=2; I <=5; I ++)
{
System.out.println(J*I);
}
```

b. **Find the error in the following code, if any: (2)**

```
int a=3; b=6;
a =+5;
if(a==b);
{
jTextField1.append(" a and b are equal");
}
else
jTextField1.setText("a and b are equal");
```

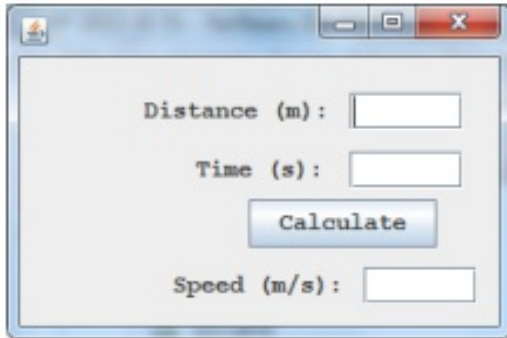c. **Rewrite the following code fragment using switch: (2)**

```
if (ch== 'A')
System.out.println("Managers") ;
if (ch=='B')
System.out.println("Supervisors") ;
if (ch=='C')
System.out.println("Clerks") ;
if (ch == 'D')
System.out.println("Trainees") ;
else
JOptionPane.showMessageDialog(null, "unknown");
```

d. **Rewrite the following code using WHILE Loop: (2)**

```
int C;
for(C=2;C<5;C++)
```

```
{
jTextArea1.append (Integer.toString ("C"+C));
}
```

7. **Write code for the following application:**

a. Write the code for cmdCalculate button to calculate the Speed and display the result in respective textfield. [Hint : Speed = Distance/Time] (2)

b. Write the code to disable txtDistance & txtTime text fields. (2)

c. Write code to make the txtSpeed uneditable. (2)

d. Write the code to clear all the text fields. (1)

8. **Answer the following questions:**

a. Give an example of each, Syntax Error and Run time Error. (2)

b. Explain logical errors with the help of an example. (2)

c. Define i. Pretty Printing ii. Exception Handling (2)

9. **Answer the following questions:**

a. Mention any two features of a good Front End. (2)

b. How is e-learning beneficial to students? Write two points. (3)

c. Manish is working as a Software Developer in MNC. He wants to create the forms with the following functions. Choose appropriate controls from Text box, Label, Option Button, Check box, List box, Combo box, Command button. (2)

S.No.	Control used to	Control used
1. 2. 3. 4.	Enter name, Address, Basic Salary Typed text which should remain hidden Multiple choices from a set Choose type of employee (permanent / Regular)	