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RN-6851

B. E. - III (Sem. - V) (Infor. Tech.) Examination

May / June - 2010

Java Programming

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशवैल निशानीवाणी विगतो उत्तरवडी पर अवश्य कभववी. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination :		<input type="text"/>
B. E. - 3 (SEM. - 5) (INFOR. TECH.)		<input type="text"/>
Name of the Subject :		<input type="text"/>
JAVA PROGRAMMING		<input type="text"/>
Subject Code No. :	<input type="text" value="6"/> <input type="text" value="8"/> <input type="text" value="5"/> <input type="text" value="1"/>	Section No. (1, 2.....) :
		<input type="text" value="1&2"/>
Student's Signature		

- (2) Answer to both the sections must be written in separate answer books.
- (3) Figures to the extreme right indicate maximum marks.
- (4) Support your answers with necessary diagrams.
- (5) Assume suitable data, when necessary.

SECTION - I

Q:1 A Given a Statement, Say whether it is True / False : 10

1. Abstraction is not an OOP Principle.
2. "Very-Good" is a Valid Java Identifier.
3. The super keyword is used to avoid instance variable hiding.
4. If the two data types are not compatible, then also Java performs the conversion automatically.
5. A Subclass variable can reference a Superclass Object.
6. A Stream is logical entity.
7. Java does support constructor overriding.
8. A Non-Subclass located in a same package can access protected members.
9. A class is logical structure whereas an object has a physical reality.
10. Java is a Compiled and an Interpreted Language.

B Briefly Discuss the structure of Java Program with simple example. 5

Q:2 A Explain Exception handling mechanism of java. Can we create user defined exceptions? If yes Explain with proper example. 6

OR

A 1. What will be the output of following code segments : **3**

```
public class A{
final String whoAmI(){
return "Parent";
}
}
public class B extends A{
String whoAmI(){
return "Child";
}
}
public static void main(String args[]){
B b = new B();
System.out.println(b.whoAmI());
}
}
```

2. Write a Java Program that generates 10 Random numbers. **3**

B Attempt the Following (Any Three) : **9**

1. Explain the use of "final" keyword in detail with the help of an example.
2. What are Abstract Classes? Why they can not be instantiated? Give an example.
3. Describe different Thread Methods.
4. Dynamic Method Dispatch.

Q:3 Attempt the Following (Any Two): **20**

1. Write a Java Program that works as "word count". Asks two things from user, one is filename and the other is word to search. And then display total number of occurrences of that word in the given file.
2. Design an Applet with one button and one textfield. Initially the button is labeled as YES. Clicking on the button the label should change to NO. When the label is NO and if we click it should change to YES and this cycle should repeat continuously. The textfield displays the number of clicks been made.
3. Write a complete Java Application for the following requirement :
Create a Class Bank with account holder's name, account number, address, and balance amount as its data members. One should be allowed to enter the information for N account holders. The system should also take care of the following :
 - a) Addition of a new record
 - b) Display the details of requested customer
 - c) To withdraw an amount after checking for minimum balance
 - d) To deposit an amountDo Proper Error Handling as well.

Section-II

Q. 4 (A) Answer the following : (10)

1. Name the container which uses Border Layout as their default layout?
2. What can go wrong if you replace && with & in the following code:
String a=null;
if (a!=null && a.length()>10)
3. What's the difference between constructors and normal methods?
4. Define : Transient variable
5. What is URL?
6. What is an Applet?
7. Do Java Applet need main() method?
8. List the in-built interfaces in Applet.
9. Applets have concept of constructors (True/False)
10. _____ is the default layout of Applet.

Q.4 (B) What is the difference between Applet and Application? Describe in detail the skeleton of an Applet. (08)

Q.5 (A) Write a Java code to display the IP address of the local machine and a well-known Internet website www.google.com (04)

(B) Create an Java Applet that draws a line using MouseListener (08)

OR

Q.5 (A) Write a Java program that displays the properties (protocol etc.) of web-page given using URL class. (04)

(B) Create a Applet that has two textboxes which takes 2 numbers, and a Combo-Box which has 4 items (ADD, MULTIPLY, SUBTRACT, DIVIDE). Create another textbox (for RESULT) which displays the result based on the selection of the user. (Note:- The Result should be displayed when the user selects an item from the Combo-Box). (08)

Q. 6 Answer the following (Any two) (20)

1. Create a Java Applet that has two buttons labeled "Yes" and "No". A message is displayed in the status bar that displays which button is pressed (on click event).
2. Explain the Frame class. Discuss the methods used when working with Frame window.
3. What is a LayoutManager? Explain any one Layout Manager in detail of your choice.