



DJ-1901

Third Year B. C. A. (Sem. V) Examination

September / October – 2007

Java Programming : Paper - 501

Time : 3 Hours]

{Total Marks : 70

Instructions :

(1)

नीचे दशावलि लिखनी विगतो उत्तरवली पर अवश्य बखदी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
T. Y. B. C. A. (Sem. 5)

Name of the Subject :
Java Programming : 501

Subject Code No. : 1 9 0 1 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

(2) Question 1 is compulsory.

(3) Figures to right indicate full marks.

1 Answer in short :

10

- (1) What is method overriding? Give difference between overriding and overloading.
- (2) Give the functionality of getChars() method.
- (3) State the difference between abstract class and concrete class.
- (4) How does a local variable differ from an instance variable?
- (5) Why is garbage collection a major advantage of the java language?
- (6) What is an applet viewer?
- (7) Give the difference between continue and labelled continue.
- (8) List out the three Object Oriented principles of Java.
- (9) What is final keyword? List out the three uses of final.
- (10) What is StringBuffer?

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[Contd...

- 2 Do as directed : 15
- (a) List out java buzzwords. Explain Architecture neutral and Platform In- Dependant. 5
 - (b) Explain about features added by java with respect to C++. 5
 - (c) Write a program that generates a custom exception if any inputted value is not in limit -5 to +5. (Do not pass the arguments as command line) 5

OR

- 2 Do as directed : 15
- (a) List out at least six major differences between C++ and java.
 - (b) Define instant method and class method. Also differentiate between them.
 - (c) Write a program to pass number through command-line argument, and check whether inputted number is perfect number or not.

- 3 Do as directed : 15
- (a) Explain following methods with example :
 - (1) toString()
 - (2) getCharat()
 - (b) Can we incompatible types in Java? Also explain about automatic type promotion rules.
 - (c) Discuss about try, catch and finally block with example.

OR

- 3 Do as directed : 15
- (a) Explain following with example : 5
 - (1) getSuperclass()
 - (2) yield()

- (b) Discuss thread base multitasking and process base multitasking. 5

Write an application that executes three threads from one thread class.. One thread displays "JAVA" every 1 second and second displays "PAPER" every 2 seconds and last one display "COLLEGE" every 3 seconds. Create the thread by using Runnable Interface.

- (c) What is an exception in Java? Explain how can you create an user defined exception? 5

4 Do as directed : 15

- (a) What is applet viewer? Explain the life cycle of an applet with example. 5

OR

- 247 (a) Write a note on deadlock. 5

- (b) The abstract class has two subclasses named AIRSAHARA1 and AIRSAHARA2. Each airplane can transport a different number of passengers. Each airplane object has unique serial number. Write an application that declares this class hierarchy. instantiate several types of airplanes and display them. Override the toString() Method of object to return a string with the type, serial number and capacity. 8

- (c) Discuss in brief about Monitor. 2

5 Do as directed : 15

- (a) Define package. How do we design a package and a class or an interface to a package. 7

OR

- 232 (a) How thread can communicate with each other in a program where multiple threads are used? 7

(b) Convert the following code using if-else statement. 4

```
class stud
{
    Public static void main(String z[])
    {
        int mark,i;
        mark=z[0];
        i=mark/10;
        switch(i)
        {
            case 7:
            case 8:
            case 9:
            case 10:
                System.out.println (" Beautiful"); break;
            case 6:
                System.out.println (" Nice"); break;
            case 5:
                System.out.println (" Not bad"); break;
            default:
                System.out.println (" Very bad"); break;
        }
    }
}
```

Note : Consider mark input through command line argument.

(c) Write an applet code to display five different images. 4