

Paper 4 : PROGRAMMING IN JAVA - 2014

Note : Attempt all two parts from each questions of each Unit.
Each part carries 10 marks.

UNIT - 1

1. (a) Explain the various features of Object Oriented Programming (OOP).
- (b) Define the term class and object. Explain with the help of suitable code in java.
- (c) Explain Wrapper class and Inner class.

UNIT - 2

2. (a) Explain the concept of inheritance with the help of an example.
- (b) Explain Package. Also explain class path setup and its application.
- (c) Create an interface called shape which should have a constant (3.1428) a method prototype for calc Area (), create three different classes Rectangle, Circle & Square which implement this interface and has a method called get Dimensions (). Print the area of all the three shapes.

UNIT - 3

3. (a) Explain the use of try, throw, catch and finally blocks with example code. <http://www.prsunotes.com>
- (b) What is thread ? Explain various states of a thread with a suitable diagram.
- (c) Create an application that has integer a, b and c and result float, store some values in them and apply the formula $\text{result} = a / (b - c)$. Catch the probable exception.

UNIT - 4

4. (a) Explain Byte stream and Character stream classes and interfaces.
- (b) What is Stream ? Explain File Input Stream and File Output Stream.
- (c) Explain about TCP/IP client socket.

UNIT - 5

5. (a) Define Java Applets. Write a java source code to design an Applet that displays "JAVA" in the Applet window.
- (b) Explain the benefits of Abstract Window Toolkit (AWT). Also write the five basic AWT components of the Java.
- (c) Explain the life cycle of an applet with systematic diagram. Discuss the methods of an applet.