Siddaganga Institute of Technology
Department of Computer Science and Engineering
Java Programming Laboratory Question Bank

PART A

1. Write a program in Java with class Rectangle with the data fields width, length, area and color. The length, width and area are of double type and color is of string type. The methods are set_ length (), set_width (), set_ color (), and find_ area (). Create two object of Rectangle and compare their area and color. If area and color both are the same for the objects then display "Matching Rectangles", otherwise display "Non matching Rectangle".

2. Write a java program to overload constructor and method.

3. Write a program in Java to create a Player class. Inherit the classes Cricket_Player, Football _Player and Hockey_ Player from Player class.

4. Consider the trunk calls of a telephone exchange. A trunk call can be ordinary, urgent or lightning. The charges depend on the duration and the type of the call. Write a program using the concept of polymorphism in Java to calculate the charges.

5. Write a program to make a package Balance in which has Account class with Display_Balance method in it. Import Balance package in another program to access Display_Balance method of Account class.

6. Create the dynamic stack by implementing the interfaces that defines push() and pop() methods.

7. On a single track two vehicles are running. As vehicles are going in same direction there is no problem. If the vehicles are running in different direction there is a chance of collision. To avoid collisions write a Java program using exception handling. You are free to make necessary assumptions.

PART B

1. Write a Java program to create five threads with different priorities. Send two threads of the highest priority to sleep state. Check the aliveness of the threads and mark which thread is long lasting.

2. Write a multi threaded Java program to implement producer-consumer problem.

3. Write a Java Applet program to perform the following
   i) Create an applet to handle all mouse events.
   ii) Design an applet which uses Card layout with 3 Buttons. When the user clicks on any button, the background layout color must change.

4. Write a Java Servlet program to perform the following

      i.   Program to accept username, address and display them in a web page by passing parameters.

     ii.   Program to request server information viz Request Method, URL, Protocol and remote address.

5. Develop a Swing and JDBC application using Java to perform the following:

     i.   Create a login page using swing components, after successful authentication, the application should display the valid email-id of the person.

     ii.   Write an JDBC application displays the employee numbers who are having maximum and minimum salaries from the database.

6. Write a JAVA Program to implement Client Server interaction (Client requests a file, Server responds to client with contents of that file which is then displayed on the screen by Client – Socket Programming).

7. Write a client-server java program, to find the area of a circle on server side, when a client sends a request along with given radius and then display the result on the client side.