Lab 5 :

Q1.

Write a complete java program to test whether a given number is a hexadecimal number or not .if it is not, an exception should be throwns and processed by the program .the exception must be user defined .the numbered must be assigned to string variable. String function must be used to processing. Irrespective of whether the number is a hexadecimal number or not the string ending the program must be printed on the screen.

Q2.

A method named add () accepts an array of strings as its argument. It converts these to double values and returns their sum. The method generates a NumberFormatExeption if an element is incorrectly formatted. It can also throw and create a CustomException, RangeException, if an element is less than 0 or greater than 1.Write a program that illustrates how to declare and use this method. Invoke the method from main ().Catch any exceptions that are thrown and display an informative message for the user. Also provide a finally block to thank the user for using the program.

Q3

Create a class that has static method main(),a(),b(),c() and d().The main() method invokes a() method a() invokes b(),method b() invokes c(),method c() invokes d().Method d() declares a local array with 10 elements and then attempts to access the element at position .therefore an ArrayIndexoutOfBoundsException is generated. Each method has a catch block for this type of exception and a finally block .The catch blocks in c() and d() contain a throw statement to propagate this exception to their caller.

Q4

Program calculates the sin(x) and cos(x) functions by computing the sin series and cos series functions using thread techniques. (sin(x) and cos(x) calculate using Math class).