**Polymorphism Lab Exercise**

1. Write a program to illustrate virtual function by creating a class shape with functions to find the area of the shapes and display the names of the shapes and other essential components of the class. Create derived classes circle, rectangle, and trapezoid each having overriding functions area() and display().
2. Write a program with an abstract class Student and create derive classes Engineering, Medicine and Science from base class Student. Create the objects of the derived classes and process them and access them using an array of pointers of type base class Student.
3. Demonstrate Deletion of Child Object using Base Class Pointer without using a Virtual Destructor.
4. Demonstrate Deletion of Child Object using Base Class Pointer using a Virtual Destructor.
5. Create a polymorphic class Vehicle and create other derived classes Bus, Car, and Bike from Vehicle. Illustrate RTTI by the use of dynamic\_cast and typeid operators in this program.