## **Assignment 1**

## Q.A. Answer the following questions in ONE or TWO lines :

- 1. State any two advantages of OOP.
- 2. Write any two differences between object oriented and procedure oriented programming languages.
- 3. State any two applications of OOP.
- 4. What is data abstraction.
- 5. What is polymorphism?
- 6. What is late binding.
- 7. Which are the types of polymorphism?
- 8. What is inheritance.
- 9. What is encapsulation.
- 10. List any two limitations of Procedure oriented languages.
- 11. Which stream is used to input values to variables in the program?
- 12. Define the term class.
- 13. What is the difference between a structure and a class in C++?
- 14. Define the term object?
- 15. What is the use of :: operator?
- 16. What is the difference between pointer and reference variable?
- 17. What is namespace? Why namespace is used?

## **Q.B.** Answer the following questions:

- 1. Write short note on "this" pointer.
- 2. Explain the concept of array of objects with example.
- 3. Explain scope resolution operator with uses and example.
- 4. Explain dynamic memory management operators in C++ with example.
- 5. Write a C++ program to illustrate the concept of nesting of classes.
- 6. Write a short note on reference variables.
- 7. Give the general format of class and state the significance of private, public and protected access specifiers.
- 8. Write the definition for a class called Rectangle that has floating point data members length and width. The class has the following member functions:

void setLenght(float); - To set the length data member

void setWidth(float); - To set the width data member

float Perimeter(); - To calculate & return the perimeter of the rectangle

float area(); - To calculate & return the area of rectangle

void show() - To display the length & width of the rectangle.

Write main function to create two rectangle objects and display each rectangle's area and perimeter.