**INHERITANCE AND VIRTUAL BASE CLASS**

AIM:

To calculate the total mark of a student using the concept of inheritance and virtual

base class.

ALGORITHM:

Step 1: Start the program.

Step 2: Declare the base class student.

Step 3: Declare and define the functions getnumber() and putnumber().

Step 4: Create the derived class test virtually derived from the base class student.

Step 5: Declare and define the function getmarks() and putmarks().

Step 6: Create the derived class sports virtually derived from the base class student.

Step 7: Declare and define the function getscore() and putscore().

Step 8: Create the derived class result derived from the class test and sports.

Step 9: Declare and define the function display() to calculate the total.

Step 10: Create the derived class object obj.

Step 11: Call the function get number(),getmarks(),getscore() and display().

Step 12: Stop the program.

**VIRTUAL FUNCTIONS**

AIM:

To write a C++ program to implement run time polymorphism through virtual

function.

ALGORITHM:

Step 1. Start the program

Step 2. Declare a base and define display() member function to display base class

content. Define show() member function to show base class content.

Step 3. Declare a derived class inherit from base and define display() member

function to display derived class content. Define show() member function to derived

class content.

Step 4. In main function create object for base and derived class.

Step 5. Assign base pointer to base class object.

Step 6. Invoke display function of base class using base pointer variable

Step 7. Invoke show function of base class using base pointer variable

Step 8. Assign base pointer to derived class object.

Step 9. Invoke display function of base class using base pointer variable

Step 10. Invoke show function of derived class using base pointer variable

Step 11. Stop the program.

PROGRAM : (VIRTUAL FUNCTIONS)