

### K. K. WAGH POLYTECHNIC, NASHIK.

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#### DEPARTMENT OF COMPUTER TECHNOLOGY

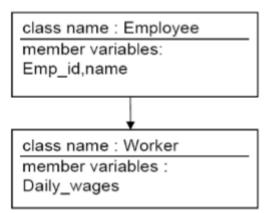
Semester :- III Master: 'K'

**Subject** 

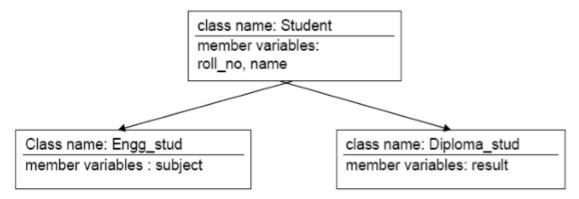
:- Object Oriented Programming (OOP) Subject Code: -313304

## Assignment No. 3 Chapter No -03 Extending classes using Inheritance

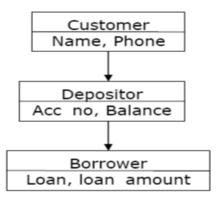
- 1. Describe access specifier with example. Difference between public and private access specifier.
- 2. What do you mean by inline function? Write its syntax and example.
- 3. Define derived class. Give one example
- 4. What is inheritance? Why inheritance used in C++?
- 5. Describe Visibility modes with example.
- 6. Explain effects of visibility modes using table.
- 7. List the different types of inheritances
- 8. Explain various types of inheritance with example and syntax.
- 9. Write a program showing use of single inheritance
- 10. How to solve ambiguity occurred in multiple in heritance give example.
- 11. Explain multiple inheritance with suitable example.
- 12. Write the program to implement inheritance as shown in fig. given below. Assume suitable member functions create at least one object.



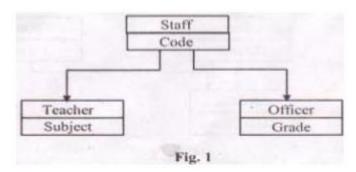
13. Write a program to implement the inheritance as shown in figure given below. Assume suitable member functions.



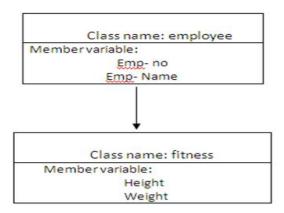
14. Write a program to implement inheritance as shown in figure below. Assume suitable data member function to accept and display function?



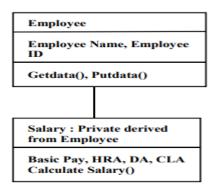
15. Write a program to implement inheritance as shown in fig 1. Assume suitable member function



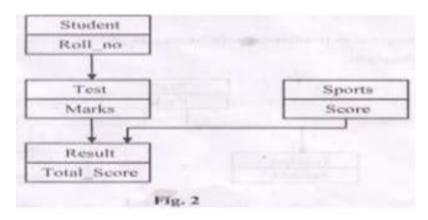
16. Write a program to implement inheritance as shown in Figure No. 1 given below assume suitable Member Function.



17. Define classes to appropriately represent class hierarchy as shown in above figure. Use constructors for both classes and display Salary for a particular employee.



18. Write a program to implement inheritance as shown in Fig.2 Assume suitable member function



- 19. What is virtual base class? Explain with suitable example.
- 20. Explain constructors in derived class using one example

#### Assignment No. 4

#### **Chapter No -04 Pointer and Polymorphism**

What is pointer? Describe pointer operator and address operator.

- 1. Explain the concept of pointer to objects with example.
- 2. Explain the concept of pointer to array of objects with example.
- 3. Explain pointer arithmetic.
- 4. Describe the use of this pointer with suitable example
- 5. Define polymorphism. Give example. State its types.
- 6. What is runtime polymorphism? Explain with suitable example.
- 7. What is static polymorphism? Explain with suitable example.
- 8. What is function overloading? Give one example.
- 9. What is function overriding? Give one example.
- 10. Difference between function overloading and overriding.
- 11. Write any eight rules of operator overloading.
- 12. Can the base class pointer be used to call virtual function? Justify your answer.
- 13. Write any any six rules of virtual function.

- 14. Write a program to overload + operator to concatenate two stings.
- 15. Write a program to reverse a string by overloading ~ operator.
- 16. Write a program to overload –operator to negate value of variable.
- 17. Write a program using function overloading to calculate area of rectangle and circle.
- 18. Write a program using function overloading to calculate volume of rectangle, cube and cylinder.
- 19. Write a program to swap two integer number and two float number. Using function overloading.

# Assignment No Chapter No -05 File Handling

- 1. Write a C++ program to write 'Welcome to poly' in a file. Then read the data from file and display it on screen.
- 2. Write a C++ program to Copy data from abc .txt to xyz .txt file.
- 3. Develop c++ program to open and read content of file
- 4. Develop c++ program to check Detection of end of file.
- 5. Enlist the different modes of File Handling

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