**C++ Assignments**

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1. Write a C++ programme with the Employee class that creates five employees; sets their Age,

Year of Service, and Salary; provide a method of Employee that reports how many

thousands of rupees the employee earns, rounded to the nearest Rs.80, 000/-.

1. Write a C++ program to create a class complex with real and imaginary parts perform addition and subtraction of two complex objects.
2. Write a C++ program to swap two variables using function. (Don't use Pointers).
3. Write a C++ program to find total salary of husband and wife using a friend function. Create

a class to hold the information of husband and another for the wife information.

1. Write a C++ program to demonstrate Shallow Copy.
2. Write a C++ program to demonstrate Deep Copy.
3. Write a C++ program to implement Private Constructor.
4. Write a C++ program to demonstrate Dynamic Constructor.
5. Write a C++ program to sort the given five names from the keyboard and print it in the sorted order. (Use C++'s DMA).
6. Write a C++ program to overload unary ' - ' operator.
7. Write a C++ program to Overload Post increment(++) and Pre increment(++) operators

using friend function.

1. Write a C++ program to overload binary ' + ' operator for the given expression.

OBJ2 = 100+OBJ1 (Hint: Use Friend Function)

1. Write a C++ program to Overload insertion (<<) and extraction (>>) operators using friend

functions.

1. Write a C++ program to Overload new and delete operators.
2. Write a C++ program to Overload [ ] operator.
3. Write a C++ program to Overload ( ) operator.
4. Write a C++ program to Overload -> operator.

18) Wap to design a base class called **bird** and derive two new classes, **flying** and **nonflying** from the base class. Consider the name, colour and country as data members, of class **bird.** Use required member functions?

19) Write a C++ program to demonstrate Hybrid Inheritance.

20) Declare a class of **vehicle**. Derived classes are **two-wheeler, three-wheeler** and **four wheeler**. Display the properties of each type of vehicle using member functions of classes?

21) Consider an example of declaring the examination result. Design three classes: **student, exam** and **result**. The **student** class has data members such as those representing roll number, name etc. Create the class **exam** by inheriting the **student** class. The **exam** class adds data members representing the marks scored in six subjects. Derive the result from the **exam** class and it has its own data members such as total marks. Write an interactive program to model this relationship. What type of inheritance this model belongs to?

22) Write a C++ program to design a base class called student with name, roll and age as its data members. Using inheritance create two new classes Student and Student with semester, fees and date paid as their data members. Enter the data for 5 students. Find the average age, semester-wise for all UG and PG students.

23) Write a C++ to overload a template function.

24) Write a C++ to exchange the values of two variables. Using template variables as a

function arguments in generic way ?

25) Write a C++ program define definition of member function template outside the class and invoke the function to overload + operator for performing addition of two template based

class objects?

26) Write a C++ program to define virtual destructors?

27) Write a C++ program to explain the nested class.

28) Write a C++ program to explain this pointer.

29) Write a C++ program to accept 10 integers in an array. Check all numbers in the array. when any negative number is found, throw an exception?

30) Write a C++ program to catch multiple exceptions?

31) Write a C++ to throw an exception in derived class?