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**CS 1** Write a C++ program to input basic salary of an employee and calculate its Gross salary according to following:

```
Basic Salary < 25000 : HRA=20% DA=80%
Basic Salary> = 25000 : HRA = 25%, DA = 90%
Basic Salary>= 40000 : HRA = 30%, DA = 95%
```

**CS 2** Write a C++ program to check percentage of a student and display the division (distinction, first, second, third or fail ) scored using switch case.

Percentage	Division	
>=80	Distinction	
>=60 and <80	First division	
>=50 and <60	Second Division	
>=40 and <50	Third Division	
<40	Fail	

**CS 3** Write a C++ program to enter any number and check whether the number is palindrome or not using while loop.

**CS 4** Using do while loop create the following menu based C++ program.

- 1. Convert a Decimal to binary number
- 2. Convert a binary number to Decimal
- 3. Exit

Depending on the choice accept the value and display the result . The program should continue till the userselect the third option

**CS 5** Write a C++ program using a user defined function to generate the Fibonacci series till n terms and print if each term is prime or Composite.

**CS 6** Write a menu driven C++ program to Insert and Delete elements in a single dimension array of integers and print the array after insertion or deletion.

**CS 7** Write a C++ program to print boundary elements of a matrix.

**CS 8** Define a class named Publisher in C++ with the following descriptions.

## private members

Bookno integer

Title 20 characters

Author 10 characters

price float

Totamt float

Define a member function called calculate() to calculate the number of copies and the price and return the total amount.

## **Public members**

- A default constructor function to initialize all data members. The book number must be automatically generated staring from 1001
- Readdata() function to accept values for Title, Author and price. Get the number of copies from the user and invoke calculate().
- Display data () function display all the data members in the following format.

		ABC PUBLISHERS INVOICE	_
Book Number	:		
Title :			
Author Name	:		
Price Per Book:			
Total Amount	:		
========	======		· ()

CS 9 Create a C++ program to create a class employee contains the following members in public.

#### **Public members**

eno integer

name 20 characters

des 20 characters

## member Function

void get() to accept values for all data members

Declare the derived class called Salary which contain the following details.

#### **Public members**

bp, hra, da, pf, np float

# member Function

void get1() to accept values for bp,hra,da and pf and invoke calculate()

calculate() calculate the np by adding bp,hra,da subtracting pf

display() Display all the details

Create the derived class object and read the number of employees. Call the function get(),get1() for each employee and display the details.

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**CS 10** Write a C++ program to create a class called Student with the following details.

## **Protected member**

Rno integer

## **Public members**

void Readno(int); to accept roll number and assign to Rno

void Writeno(); To display Rno.

The class Test is derived Publically from the Student class contains the following details

#### **Protected member**

Mark1 float

Mark2 float

#### **Public members**

void Readmark(float,float); To accept mark1 and mark2

void Writemark(); To display the marks

Create a class called Sports with the following detail

## **Protected members**

score integer

# **Public members**

void Readscore(int); To accept the score

void Writescore(); To display the score

The class Result is derived Publically from Test and Sports class contains the following details

#### **Private member**

Total float

#### **Public member**

void display() assign the sum of mark1, mark2, score in total. invokeWriteno(), Writemark() and Writescore(). Display the total also.

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