PRACTICAL-1

1. Write a C++ to compute the area of a triangle, area of rectangle, square and circle using function Overloading.

SOURCE CODE-

OUTPUT:

Put the screenshot here.(remove this line while printing the file)

STUDENT NAME/UNIVERSITY ROLL NO./STUDENT SEMESTER/STUDENT SECTION

2. Write a C++ program to get the marks of a student in six subjects and calculate the result.

SOURCE CODE-

OUTPUT:

Put the screenshot here.(remove this line while printing the file)

3. Write a C++ program to check whether the entered number is Armstrong or not.

SOURCE CODE:

OUTPUT:

STUDENT NAME/UNIVERSITY ROLL NO./STUDENT SEMESTER/STUDENT SECTION

PRACTICAL-2

4. Write a C++ program to check whether an entered year is leap year or not.

5. Write a C++ program for array rotation.

6. Write a C++ program to find factorial of any number.

PRACTICAL-3

7. WAP the function power() to raise a number m to a power n. the function takes double value for m and integer value for n and return the result correctly. Use a default value of 2 for n to make the function to calculate squares when this argument is omitted. Write a main function that gets the values of m and n from the user to test the function.

8. Write a C++ program to multiply two 3x3 matrices and print the matrix in the tabular form.

9. An electricity board charges the following rates to domestic users to discourage large consumption of energy:

For the first 100 units – 60P per unit

For the next 200 unit – 80P per unit
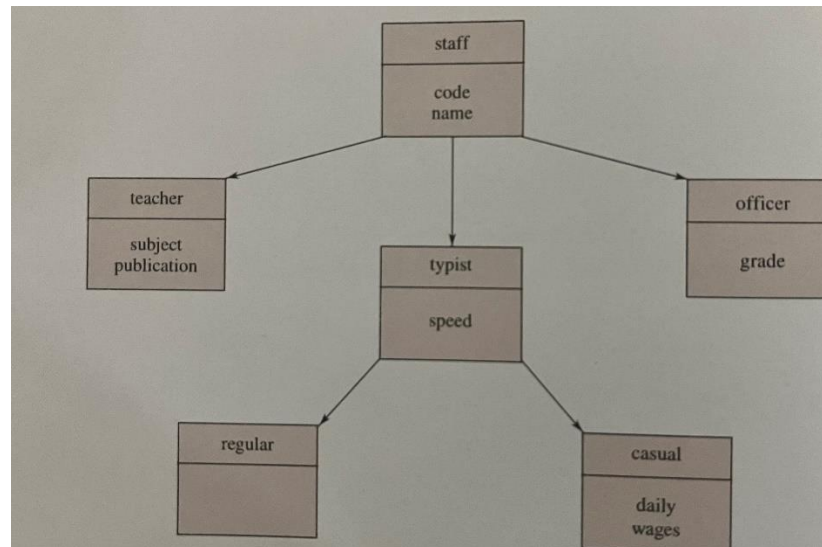
For beyond 300 unit – 90P per unit.

All users are charged a minimum of rupees 50.00 If the total amount is more than Rs. 300 then an additional surcharge of 15% is added. WAP to read the names of users and no. of units consumed and print out the charges with names.

PRACTICAL-4

10. Write a C++ program to take an input of object array and sort the strings stored in it

11. Write a C++ program to create static data members and member functions and access them

12. Write a program to remove the character from 1st string which are present in 2nd string.

PRACTICAL-5

13. Write a C++ program to create a class tollbooth. The two data element are type unsigned int to hold the total no. of cars and a type double to hold total amount of money collected. A member function initializes both of these to zero. The member function called paying car, increment the car total and add 50 to the car total. Another function called non-paying car, increment the car but add nothing to the car total. Finally the member function called display, displays the two total. Make the program menu driven.

14. An educational institution wishes to maintain a database of its employees. The database is divided into a number of classes whose hierarchical relationships as shown in below fig. the figure also shows the minimum information required for each class. Specify all the classes and define functions to create the database & retrieve individual information as and when required.

PRACTICAL-6

15. Write a C++ program to show hierarchical inheritance.

16. Write a C++ program to show the concept of all the constructors.

17. Write a C++ program to overload << and >> operator using friend function.

PRACTICAL-7

18. Write a C++ program to make an abstract class that uses pure virtual function to calculate square of a floating point number and cube of that number using hierarchical inheritance.

19. Write a C++ program to overload and add two strings using + operator.

20. C++ program to create a class "Point" having X and Y Axis with getter and setter functions.

PRACTICAL-8

21. Write a program to sort an array of integer using function pointer in descending order and resort this array in ascending order using virtual function.

22. Write a program to show the use of Virtual destructor.

23. Write a C++ program to show working of this pointer.

PRACTICAL-9

24. Write a program with the following

   (a). A function to read to double type numbers from keyboard

   (b). A function to calculate the division of two numbers.

   (c). A Try block to throw an exception when a wrong type of data is keyed in

   (d). A try block to detect and throw an exception if the condition "divide by 0" occurs

   (e). Appropriate catch block to handle the exceptions thrown.

25. Write a program to show the use of multiple catch statements.

PRACTICAL-10

26. Write a program using ofstream class to enter student details as student id and student name and display the data.

27. Write a program using ifstream class to display student details as student id and student name.

28. Write a program to show function templates in arrays.