Experiment No. 1 Date:

Aim: Implement the concept of inline function.

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PART A] Write a program in C++ to Substract two numbers and divide two numbers using the concept of Inline function.

PART B] Write a program in C++ to calculate the area of circle and circumference of circle using the concept of inline function.

Theory : An inline function is a function whose defination is small and can be substituted at the place where it's function call is made. By using the "Inline" keyword before a function's defination, you suggest to the compiler to insert the complete body of the function whenever the function is called thus elimina-ting the overhead of a function call.

→ Syntax :

```
inline return-type function-type (parameters) {
}
```

Accessor Functions : Commonly used for accessor function in classes where the function simply returns a value or sets a member variable.

Code :-

PART A :

```
#include<iostream>
using namespace std;
inline int sub (int x, int y) {
        int c;
        c= x-y;
        return c;
}
inline int divi (int x, int y) {
        int d;
        d = x / y;
        return d;
}
int main () {
    int m, n, o, p;
    cout <<" Enter any two numbers : " << endl;
    cin >> m >> n;
    o = sub (m,n);
    cout <<" The substraction is : " << o << endl;
    p = divi (m,n);
    cout <<" The division is : " << p << endl;
}
```

Output :

```
Enter any two Numbers :
69  96
The substraction is : -27
The division is : 0
```

Code :- PART B :

```
#Include<iostream>
using namespace std;
inline int area (int x){ {
    int c; float pi = 3.142;
    c= pi * (x * x);
    return c;
}
inline int circum (int x) {
    int d; float pi = 3.142;
    d = 2 * pi * x;
    return d;
}
int main () {
 int m, o, p;
 cout <<" Enter any a Number : " << endl;
 cin >> m;
 o = area (m);
 cout << " The area of circle is : " << o << "sq.fts"
                                    << endl;
 p = circum (m);
 cout <<" The circumference of circle is : " << p <<
                                    "sq.fts" << endl; }
```

Output : Enter any Number : 69 96
The Area of Circle is : 14959 sq.fts.
The circumference of Circle is : 433 sq.fts.

Conclusion: Hence the programs on the inline function were executed successfully with correct output.

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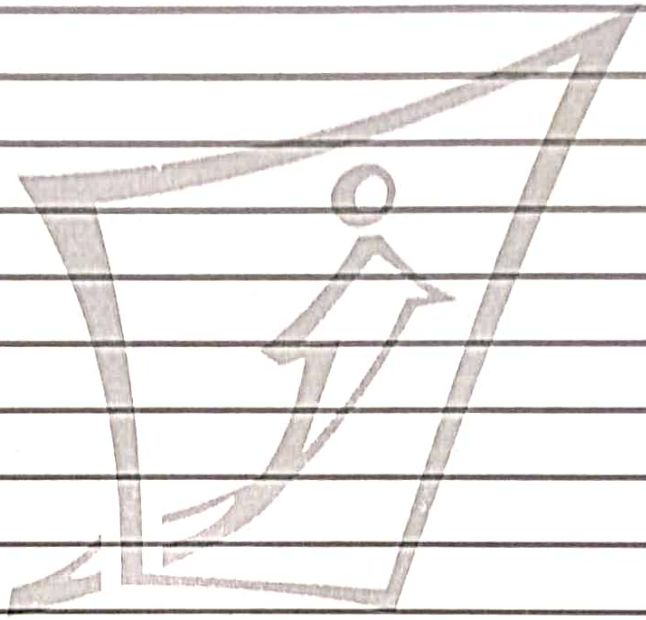

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