Practical-10.(a)

Aim: Write a C++ program to create Simple calculator using Class template.

Algorithm:(i)Start

(ii)class{….};

(iii)Main function

(iv)Print the result

(v)Stop

Theory: In this practical,we will see a C++ program to create Simple calculator using Class template.

Program:

```
#include <iostream>
using namespace std;
template <class T>
class Calculator
{
private:
    T num1, num2;
public:
    Calculator(T n1, T n2)
    {
```

```
        num1 = n1;
        num2 = n2;
    }
    void displayResult()
    {
        cout << "Numbers are: " << num1 << " and " << num2 << "." << endl;
        cout << "Addition is: " << add() << endl;
        cout << "Subtraction is: " << subtract() << endl;
        cout << "Product is: " << multiply() << endl;
        cout << "Division is: " << divide() << endl;
    }
    T add() { return num1 + num2; }
    T subtract() { return num1 - num2; }
    T multiply() { return num1 * num2; }
    T divide() { return num1 / num2; }
};
int main()
{
   std::cout<<"08_Rabin Nadar"<<std::endl;
    Calculator<int> intCalc(2, 1);
```

```
    Calculator<float> floatCalc(2.4, 1.2);
    cout << "Int results:" << endl;
    intCalc.displayResult();
    cout << endl << "Float results:" << endl;
    floatCalc.displayResult();
    return 0;
}
```

Output:

```
Output
/tmp/b8PtV6pjTz.o
08_Rabin Nadar
Int results:
Numbers are: 2 and 1.
Addition is: 3
Subtraction is: 1
Product is: 2
Division is: 2

Float results:
Numbers are: 2.4 and 1.2.
Addition is: 3.6
Subtraction is: 1.2
Product is: 2.88
Division is: 2
```

Conclusion:

We have successfully written the code and executed it.