

LAB # 11

Summary

Items	Description
Course Title	Programming Fundamentals
Lab Title	Pointers
Duration	3 Hours
Operating System /Tool/Language	Visual Studio

Syntax:

type *name

name = address of variable // normally

Example # 01

```
#include "stdafx.h"
#include<iostream>

using namespace std;
int main()
{
    int *p1,*p2;
    int a=10,b=20;
    p1=&a;
    p2=&b;
    cout<<" value of a= "<<a;
    cout<<" \nvalue of b= "<<b;
    cout<<" \nvalue of p1= "<<p1;
    cout<<" \nvalue of p2= "<<p2;
    cout<<" \nvalue of &a= "<<&a;
    cout<<" \nvalue of &b = "<<&b;
    cout<<" \nvalue of *p1 = " <<*p1;
```

```

cout<<" \nvalue of *p2 ="<<*p2;

system("pause");
return 0;
}

```

Example # 02

```

#include "stdafx.h"
#include<iostream>
using namespace std;
//addition of numbers through pointers
int main()
{
    int a=5,b=10,c,*p1,*p2,*s;
    p1=&a;
    p2=&b;
    s=&c;
    *s=*p1+*p2;
    cout<<"addition of values at adress =" <<*s;
    system("pause");
    return 0;
}

```

Example # 03

```

// oop2_ex3.cpp : Defines the entry point for the console application.
//

#include "stdafx.h"
//pointer to pointer

#include<iostream>
using namespace std;
int main()
{
    int i=3,*j,**k;
    j=&i;
    k=&j;
    cout<<"\n Address of i = "<<&i;
    cout<<"\n Address of i = "<<j;
    cout<<"\n Address of i = "<<*k;
    cout<<"\n Address of j = "<<&j;
    cout<<"\n Address of j = "<<k;
    cout<<"\n Address of k = "<<&k;
    cout<<"\n Value of j = "<<j;
    cout<<"\n Value of k = "<<k;
    cout<<"\n Value of i = "<<i;
    cout<<"\n Value of i = "<<*&i;
    cout<<"\n Value of i = "<<*j;
    cout<<"\n Value of i = "<<**k;
}

```

```
    system("pause");  
    return 0;  
}
```

LAB TASKS

TASK # 01

Compile all sample programs and get familiar with pointers

TASK # 02

Create a C++ program to find the sum of 5 numbers using pointers

TASK # 03

Create a C++ program to swap the values of two variables using pointer notation.

TASK # 04

Using the concept of pointer to pointer create a program which add two float values

```
*(p1)+*(p2)
```

TASK # 05

COMPILE a C++ program to find the largest number from the array of 7 numbers using pointer

TASK # 06

Create a program which print the table of 2 upto 12 using pointers.