STUDYBYNOTES

Scope of Variables in C++

The scope of the variable is simply lifetime of a variable. It is a block of code which a variable is applicable.

There are mainly two types of variable scope
(i) local variables
(ii) Global variables

Global and local variable have same name in C++: (Yes).

Example:
```
#include<iostream.h>
#include<conio.h>
```

Global variable
```
int a=5;          // global variable

void main()
{
   int a=2;       // local variable
// local variable with same name as global variable
}
```
local variable

STUDYBYNOTES

Local Variables

Variables that defined within a function or block are said to be local to those functions.

A variable defined inside a function is called a local variable.

local variable :- defined inside function body between '{' and '}' braces.

Local variable can be accessed only inside functi

Example :-

```
#include<iostream.h>
#include<conio.h>

void func()
{
  int rollno=5; // variable is local to the function func()
}
void main()
{
cout<<"Roll no ":<<rollno)
 getch();
}
```

Global Variables

If a variable is defined outside all functions, then it is called a global variable.

The scope of a global variable is in the whole program. It can be used and changed at any part of the program.

The life of Global variable ends only when the program ends.

Program:-

```
#include<iostream.h>
#include<conio.h>

int a=5;

void show()
{
cout<<a<<endl;
}
void main()
{
show();
a=10;
```

```
    show();
    getch();
}
```

* Difference Between Local and Global Variables

	Local Variables	Global Variables
1	Local variable is declared inside a function	Global variables is declared outside the functio
2.	Local variable doesn't provide data sharing.	Global variable provide data sharing.
3.	The scope is limited and remain within the function only.	The scope remains throughout the program.
4)	A local variable is created when the function is executed and when execution is finished, it is destroyed.	A global variable exists in the program for the entire time, the program is executed.
5)	Any change in the local variable does not effect other functions.	Any change in global variable affects the whole program.