CHAPTER - 7

CONTROL STATEMENTS

★ **Decision Making Statements**

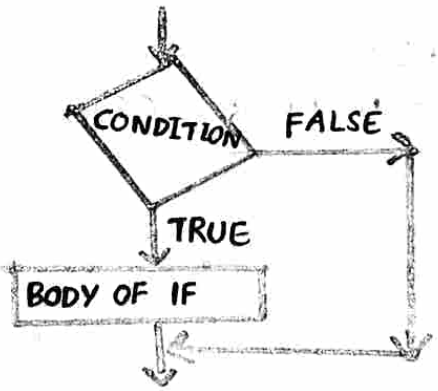
* Decision making statements or selection statements involves relational operators where an comparison is done and it returns true or false value.
* selection statements will be executed only once, Based on true or false value corresponding statements will be executed.
* The different selection statements includes.

1. simple if
2. if.... else statement
3. Nested if
4. If.... else if ladder
5. switch statement

1.* Simple if statement consist of only a true block where a block of statement will be executed if the condition returns true value.

Syntax

```
if (test_exp)
{
body of if ;
}
```



● Write a c++ program to check the greater of 2 numbers.

Ans)

```
#include<iostream.h>
void main( )
{
int a,b;
cout<<"enter input";
cin>>a>>b;
if (a>b)
{
```

```
cout << "a is greater";
}
cout << "hello";
}
```

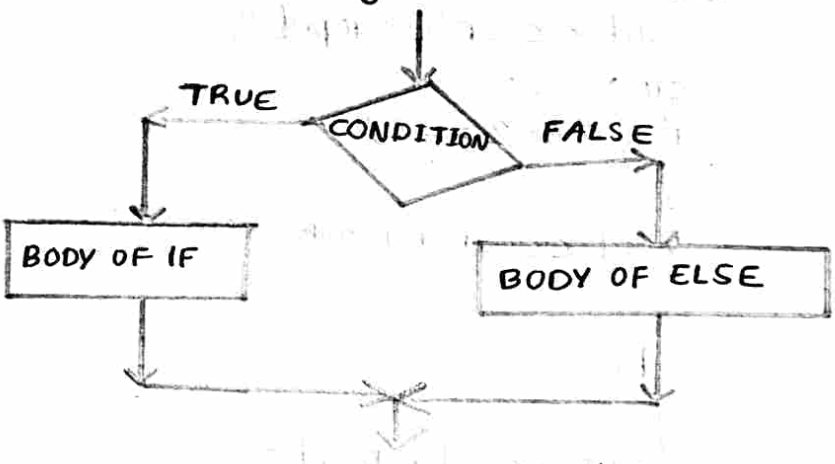
* In the above program the statement if (a>b) checks the condition returns true value the body of if will be executed i.e. cout << "a is greater" will be executed.
* If the condition returns false value body of if will not be executed.
* The statement cout << "hello" will be executed for both true and false value from if statement because the statement is included in the main function.

2. if.... else

* If...else statement contains an test expression or condition.
* In if.... else statement there is a true block (body of if) and a false block (body of else).
* When the condition returns true body of if will be executed. When the condition returns false body of else will be executed.

Syntax

```
if (test_exp)
{
body of if;
}
body of else;
}
```



- Write a c++ program to check greater of 2 numbers.

Ans)

```
#include<iostream.h>
void main()
{
int a,b;
cout << "enter input";
cin >> a >> b;
if (a>b)
{
cout << "a is greater";
}
else
```

```
{
cout<<"b is greater";
}
}
```

* In the above program the statement if (a>b) checks the condition and if the condition returns true value the body of if will be executed or true block i.e. cout<<"a is greater" will be executed.
* When the condition returns false body of else or false block will get executed i.e. cout<<"b is greater"; will be executed.

• Write a c++ program to check whether a given number is even or odd.

Ans)
```
#include<iostream.h>
void main()
{
int a;
cout<<"enter input";
cin>>a;
if (a%2==0)
{
cout<<"even number";
}
else
{
cout<<"odd number";
}
}
```

* In the above program the statement a%2 returns remainder.
* The condition checks whether the remainder is 0, if 0 displays even number as output or else display odd number as output.