

## CONDITIONAL STATEMENT (OR) DECISION MAKING STATEMENTS

Conditional Statements is a feature of programming language, which allows it to perform actions depending upon some conditions provided by the programmer.

Conditional statement controls the sequence of statements depending on the condition.

### Types of Conditional Statements

1. If Statement
2. If else Statement
3. If else ladder
4. Nested if
5. Switch statement.

#### 1. If statement

Statement execute set of command like when condition is true.

##### Syntax

If (Condition)  
statement;

- The statement is executed only when condition is true.
- If the if statement body is consists of several statement then better to use pair of curly braces
- Here in case condition is false, then compiler skip the line within if block.

##### Example

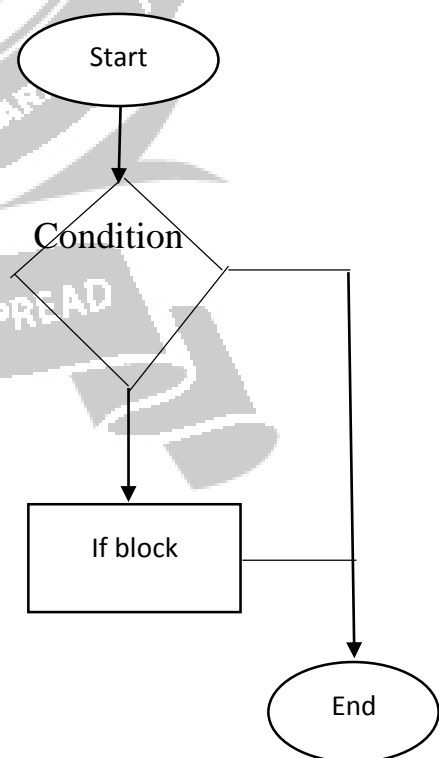
```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;

a=5;
b=2;
if(a>b)
{
printf("a is greatest");
}
}
```

##### Output

a is greatest

##### Flow Chart



## 2. If else statement

It is bidirectional conditional statement

If condition are satisfy true, then a single or block of statement executed otherwise another single or block of statement is executed. It is used to perform two operations for a single condition.

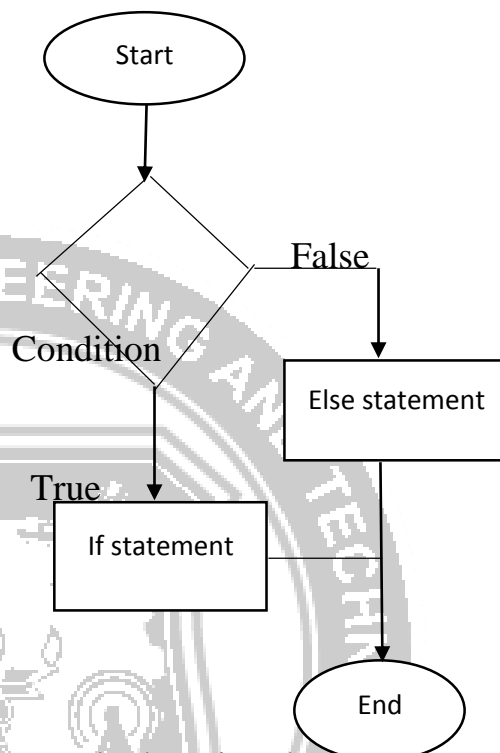
### Syntax:

```
if(condition)
```

```
{
statement 1;
statement 2;
}
```

```
else
```

```
{
statement 1;
statement 2;
}
```



If the given condition is true then, if block executed otherwise else block executed.

### Example

```
/*To check a number is even or odd*/
```

```
#include<stdio.h>
```

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

```
void main()
```

```
{
```

```
int n;
```

```
printf("Enter a number:");
```

```
scanf("%d",&n);
```

```
if(n%2==n)
```

```
{
```

```
printf("Even Number");
```

```
}else
```

```
{
```

```
printf("Odd Number");
```

```
}
```

### Output

```
Enter a number : 121
```

```
Odd Number
```

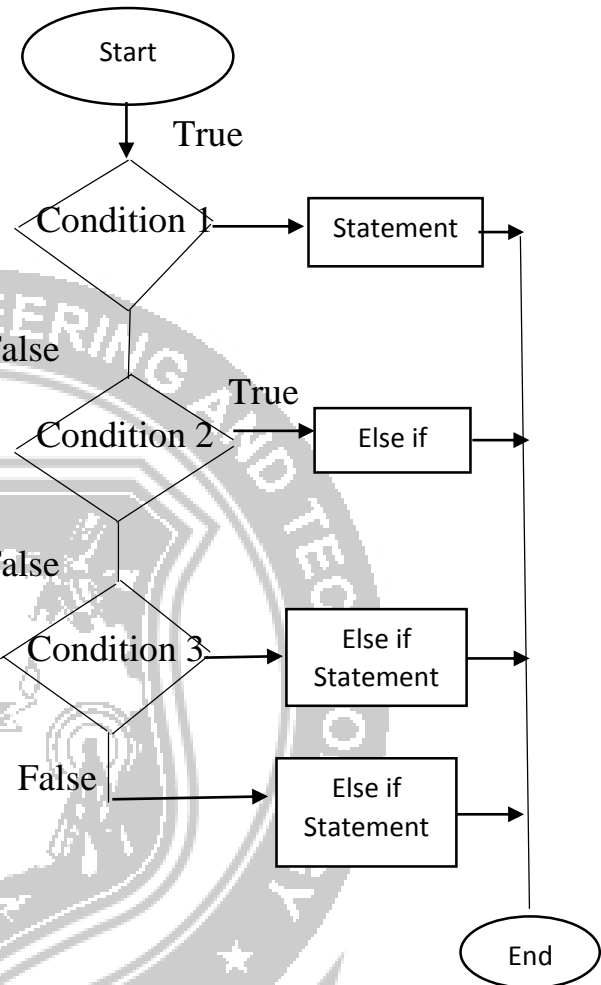
### 3. Else if ladder

If condition is false control pass to block where condition is again checked with its

if statement.

#### Syntax

```
if(Condition 1)
{
statements;
}
else if(Condition 2)
{
statements;
}
.
.
.
else
{
statements;
}
```



- This process continue until there is no if statement in the last block.
- If one of the condition is satisfy this condition other nested “else if” would not executed

#### Example: Relation between two numbers

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
a=5;
b=3;
if(a>b)
{
printf(“a>b greater”);
}
else if(a<b)
{
printf(“a<b lesser”);
}
```

```

}
else
{
printf("Both are equal");
}

```

#### 4. Nested if

When there are another if else statement in if block or else block, then it is called nesting of if else statement.

##### Syntax

```

if(condition 1)
{
statement 1;
if(condition 2)
{
statement 2;
}
}

```

##### Example:

```

#include<stdio.h>
#include<conio.h>
void main()
{
int mark;
printf("Enter your mark:");
scanf("%d",&mark);
if(mark>=35)
{
printf("You are Pass");
if(mark>90)
{
Printf("Passed with first class");
}
}
}

```

#### 5. Switch Statement

Switch statement is a multiple choice selection statement. **Switch** is a keyword. It will be executed according to user choice. Each switch case must include **break** keyword.

##### Syntax:

```

switch(Expression)
{
case label 1;
statement 1;

```

```
break;
case label 2:
statement 2;
break;
“
“
“
default;
statement;
}
```

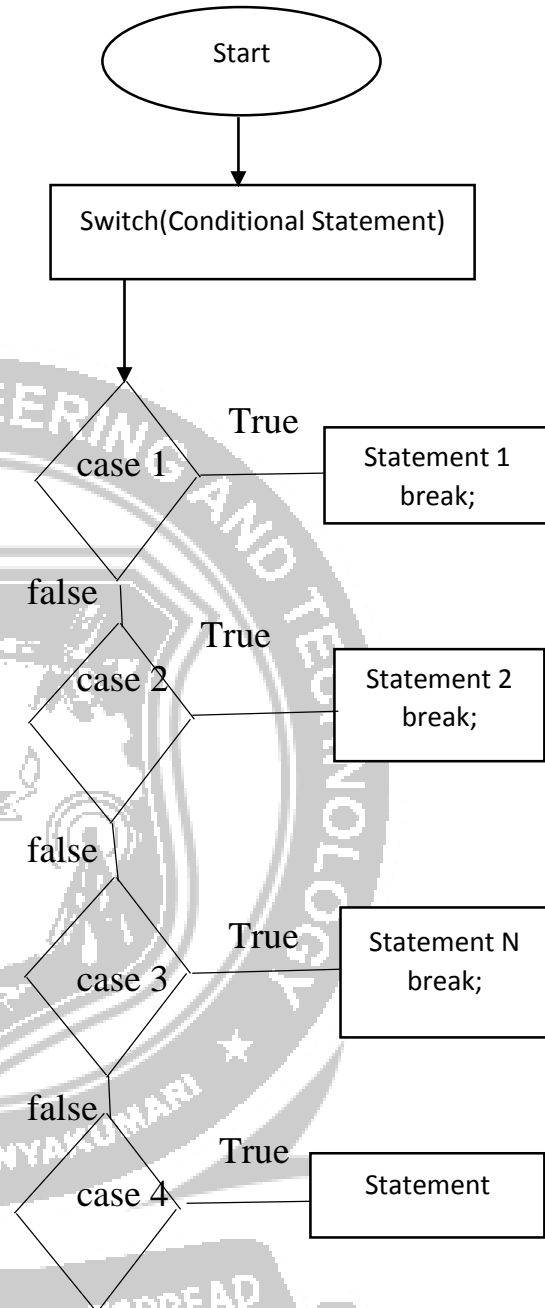
**Example**

```
#include<stdio.h>
#include<conio.h>
void main()
{
char grade;
printf(“Enter your grade:”);
scanf(“%c”,&grade);
switch(grade)
{
case’A’:
printf(“Outstanding”);
break;
case’B’:
printf(“Very Good”);
break;

case’C’:
printf(“Average”);
break;

case’D’:
printf(“Do well in next exam”);
break;
default;
printf(“You are fail”);
}
```

**Flow chart**



**Output**

```
Enter your grade: A
                Outstanding
Enter your grade: B
                Very Good
```

Enter your grade: C

Average

Enter your grade: D

Do well in next exam

Enter your grade: E

Fail

