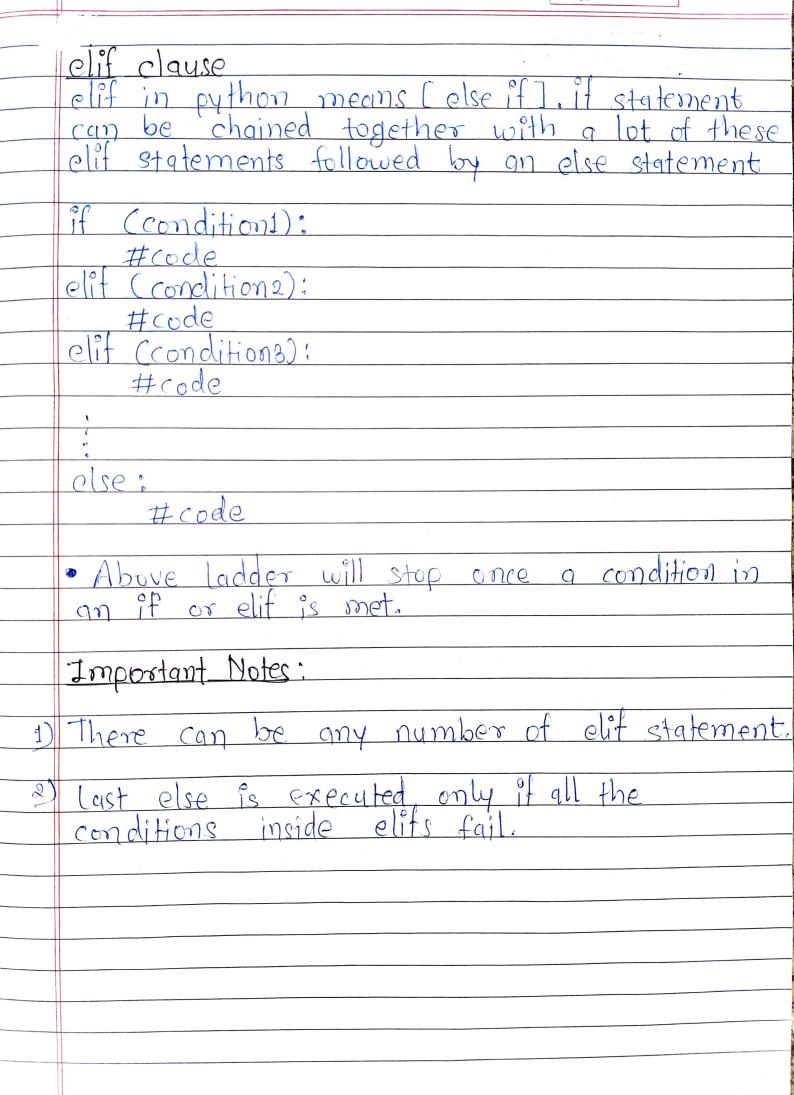# Chapter - 6
Conditional Expressions

Sometime we want to play pubg on our phone if the day is sunday.

Sometime we order Iicecream online if the day is sunday.
Somtime we go biking if our parents allow.

All these are decisions which depends on a condition being met.

In python programming too, we must be able to execute instructions on a conditions being met. This is what conditions are for!

If else and elif in Python
If else and elif statements are a multiway decision taken by our program due to certain conditions in our code.

Syntax:

```
if (condition1):        // if condition 1 is true
    print ("yes")
elif (condition2):      // if condition 2 is true
    print ("No")
else:
    print ("May be")    // otherwise
```

Code Example:

```
a = 22
if (a>9):
    print ("Greater")
else:
    print ("lesser")
```

Quick Quiz: Write a program to print yes when the age entered by the user is greater than or equal to 18.

Relational Operators

Relational operators are used to evaluate conditions inside if statements. Some examples of relational operators are:

```
==        equals
>=        greater than/equal to
<=        less than/equal to    etc.
```

Logical Operators

In python, logical operators operate on conditional statement. Example:

and → true if both operands are true else false
or → true if at least one operand is true else false

not → inverts true to false and false to true

elif clause

elif in python means [else if]. if statement can be chained together with a lot of these elif statements followed by an else statement

```
if (condition1):
    #code
elif (condition2):
    #code
elif (condition3):
    #code
    ⋮
else:
    #code
```

• Above ladder will stop once a condition in an if or elif is met.

Important Notes:

1) There can be any number of elif statement.

2) last else is executed only if all the conditions inside elifs fail.

Chapter- 6
Practice Set

Que 1. Write a program to find the greatest of four numbers entered by the user.

Que 2. Write a program to find out whether a student is pass or fail if it requires a total of 40% and at least 33% in each subject to pass. Assume 3 subjects and take marks as an input from the user.

Que 3. A spam comment is defined as a text containing the following keywords:

"make a lot of money", "buy now", "Subscribe this", "Click this", Write a program to detect these spams.

Que 4. Write a program to find whether a given username contains less than 10 characters or not.

Que. 5. Write a program that finds out whether a given name is present in a list or not.

Que 6. Write a program to find out whether a given post is talking about "Abhi" or not.