Control Flow Statements

Conditional Statements

Example 1

```python
a = 10

if a >= 10:
    print("a is equal to 10")
else:
    print("b is not equal to 10")
```

Example 2

```python
a = 10
if a > 10:
    print("a is equal to 10")
else:
    print("a is not equal to 10")
```

Example 3: User Input

```python
course = input("Enter the course name: ")

if course == "Science":
    print("Interested in science")
elif course == "Commerce":
    print("Interested in commerce")
else:
    print("Interested in arts")
```

Conditional Statements with Multiple Conditions

```python
a = 10
b = 20

if a < b:
    print("inside if1")
    print("a is lesser than b")
elif True:
    print()
elif a > b:
    print("inside if2")
    print("a is greater than b")
else:
    print("inside else")
```

Finding the Greatest Number

```python
num1 = int(input("Enter the number 1: "))
num2 = int(input("Enter the number 2: "))

if num1 > num2:
    print(num1)
else:
    print(num2)
```

Finding the Least Number Among Three Numbers

```python
num1 = int(input("Enter the number 1: "))
num2 = int(input("Enter the number 2: "))
num3 = int(input("Enter the number 3: "))

if num1 < num2 < num3:
    print(num1)
elif num2 < num3:
    print(num2)
else:
    print(num3)
```

Nested If Conditions

```python
letter = "A"

if letter == "B":
    print("letter is B")
else:
    if letter == "C":
        print("letter is C")
    else:
        if letter == "A":
            print("letter is A")
        else:
            print("letter isn't A, B and C")
```

Username and Password Validation

```python
user_name = "MAHESH"
pwd = 12345

uname = input("Enter the user name:\t")
upwd = eval(input("Enter the password:\t"))

if user_name == uname and pwd == upwd:
    print("Login successful!")
elif user_name == uname or pwd == upwd:
    if user_name == uname and pwd != upwd:
        print("Please enter the correct password")
    elif user_name != uname and pwd == upwd:
        print("Please enter the correct username")
else:
    print("Please enter the valid password and username")
```

Age Calculator

```python
birth_year = int(input("Enter your birth year: "))
current_year = 2024
age = current_year - birth_year
print(f"Your age is {age}")
```

Tip Calculator

```python
bill_amount = float(input("Enter the bill amount: "))
tip_percentage = float(input("Enter the tip percentage: "))
tip = (bill_amount * tip_percentage) / 100
total = bill_amount + tip
print(f"Tip: {tip}")
print(f"Total amount to be paid: {total}")
```

BMI Calculator

```python
Weight = eval(input("Please enter the weight in kg's: \t"))
Height = eval(input("Please enter the height in ft : \t"))

BMI = Weight / (Height * 0.3048)
print("Your BMI is", BMI)
```