

Varnika Mulay – Meta Scifor Python Test 1

Q6. What do you mean by conditional statements. Explain with python code.

Ans – Conditional statements in Python represent the statements that execute a block of code based on whether a condition is True or False. Python provides various types of conditional statements like:

- a. if
- b. if - else
- c. if – elif – else
- d. match – case

EXAMPLE CODE:

```
num1 = 40
num2 = 30
if(num1>num2):
    print(num1, "is greater")
elif(num1==num2):
    print("Both are equal")
else:
    print(num2, "is greater")
```

OUTPUT:

40 is greater

Q7. What do you mean by decision-making statements. Explain with python code.

Ans: Decision–making statements, also called conditional statements, execute a piece of code depending on a specific condition. It will decide which block of code to execute depending on whether the condition is True. Python provides various decision-making statements like:

- a. if
- b. if – else
- c. if – elif -else
- d. match – case

EXAMPLE CODE

```
value = int(input("Enter a value: "))
match value:
    case 1:
```

```
print("One")
```

case 2:

```
print("Two")
```

OUTPUT:

Enter a value: 1

One

Q8. Write a program of factorial in python

CODE:

```
def factorial(num):
```

```
    temp = 1
```

```
    if num<0:
```

```
        print("Invalid number")
```

```
    for i in range(1, num+1):
```

```
        temp = temp * i
```

```
    print("Factorial is: ",temp)
```

```
factorial(5)
```

OUTPUT:

Factorial is: 120

Q9. What do you understand by Functions? Explain with python code.

Ans: A Python function is a code block written to complete or execute a certain task. It is a block of code that is reusable i.e., the code doesn't need to be written again-and-again. It is defined using the "def" keyword and it only executes when it is called.

EXAMPLE CODE:

```
def addition(num1, num2):
```

```
    num3 = num1+num2
```

```
    print("Addition is: ",num3)
```

```
num1 = int(input("Enter number: "))
```

```
num2 = int(input("Enter a number: "))
```

```
addition(num1, num2)
```

OUTPUT:

Enter number: 1

Enter a number: 4

Addition is: 5

Q10. How many pillars of OOps we have in Python?

Ans: Python provides 4 pillars of OOPs which are:

- a. Abstraction: In this, only the necessary features of an object are displayed and all the other complex methods behind its implementation are hidden.
- b. Encapsulation: In this, the access to certain private attributes of an object is restricted outside the class.
- c. Polymorphism: Polymorphism enables us to call a method of the same name, but in different classes to output different results for different input parameters. In short, a method in polymorphism can be used in many ways.
- d. Inheritance: Inheritance allows a child class to inherit certain attributes and methods from a parent class. The child class also has its own attributes and features.