## Assignment Part-1

**Q1. Why do we call Python as a general purpose and high-level programming language?**

Ans – Python is called as general purpose and high level programming language because it is written in human readable form. It is easy to understand by human. Interpreter is used to convert human readable form to machine understandable form.

**Q2. Why is Python called a dynamically typed language?**

Ans – Python is called as dynamically typed language because the type of variable is defined during runtime. Python interpreter does type checking only when the code runs.

**Q3. List some pros and cons of Python programming language?**

Ans – Some pros and cons of Python:

|  |  |
| --- | --- |
| **Pros** | **Cons** |
| Extensive libraries | Dynamically typed language |
| Highly Scalable | High memory consumption |

**Q4. In what all domains can we use Python?**

Ans – The domain in which Python is used.

1. Machine Learning
2. AI
3. Data Science

**Q5. What are variable and how can we declare them?**

Ans – Variables are the name given to the memory location. To declare (create) a variable, you will specify the type, leave at least one space, then the name for the variable and end the line with a semicolon (;).

**Q6. How can we take an input from the user in Python?**

Ans – Python use inbuilt function input()to take input from user.

**Q7. What is the default datatype of the value that has been taken as an input using input() function?**

Ans – Default datatype is string.

**Q8. What is type casting?**

Ans – Type Casting is changing one data type into another.

**Q9. Can we take more than one input from the user using single input() function? If yes, how? If no, why?**

Ans – Yes, We can take more than one input from user using split() function. Below is an example for same.

a, b, c = input("Enter three values: ").split()

print("Enter Your First Name: ", a)

print("Enter Your Last Name: ", b)

print("Enter Your Class: ", c)

print()

**Q10. What are keywords?**

Ans – Keywords are the special words which are reserved in python. Those words we cannot use to define variable, function, and identifier.

Ex- for, while, break, continue, etc.

**Q11. Can we use keywords as a variable? Support your answer with reason.**

Ans – No, We cannot use keywords as a variable**.**

Ex- for, while, break, continue, etc.

**Q12. What is indentation? What's the use of indentation in Python?**

Ans - Python indentation refers to adding white space before a statement to a particular block of code.

Python indentation is a way of telling a Python interpreter that the group of statements belongs to a particular block of code.

**Q13. How can we throw some output in Python?**

Ans – We can use inbuilt print() function to throw some output in python.

**Q14. What are operators in Python?**

Ans - Operators are special symbols that are used to perform some sort of computation.

**Q15. What is difference between / and // operators?**

Ans – ‘/’ gives output in float while “//” gives outputs as integer or we can say // does not print output after decimal part.

**Q16. Write a code that gives following as an output.**

**```**

**iNeuroniNeuroniNeuroniNeuron**

**```**

Ans -  
c = "iNeuron"

d = c\*4

print("output is :",d)

**Q17. Write a code to take a number as an input from the user and check if the number is odd or even.**

Ans –

num = int(input("Enter the number: "))

if (num%2==0):

print("Number is Even")

else:

print("Number is odd")

**Q18. What are boolean operator?**

Ans - a Boolean expression is an [expression](https://en.wikipedia.org/wiki/Expression_(programming)) used in [programming languages](https://en.wikipedia.org/wiki/Programming_language) that produces a [Boolean value](https://en.wikipedia.org/wiki/Boolean_value) when evaluated. A Boolean value is either true or false.

**Q19. What will the output of the following?**

```

1 or 0 🡪 **1**

0 and 0 🡪 **0**

True and False and True 🡪 **False**

1 or 0 or 0 🡪 **1**

```

**Q20. What are conditional statements in Python?**

Ans – Conditional expressions (sometimes called a “ternary operator”) have the lowest priority of all Python operations. The expression x if C else y first evaluates the condition, C (not x); if C is true, x is evaluated and its value is returned; otherwise, y is evaluated and its value is returned.

**Q21. What is use of 'if', 'elif' and 'else' keywords?**

Ans – If, elif and else are conditional operator which is used when we have more than one condition.

If and else is used when we have one condition and if, elif and else is used when we have more than one condition.

**Q22. Write a code to take the age of person as an input and if age >= 18 display "I can vote". If age is < 18 display "I can't vote".**

Ans -

age = int(input("Enter the age: "))

if (age>=18):

print("I can Vote")

elif (age<18):

print("I cannot Vote")

else:

print("Invalid Input")

**Q23. Write a code that displays the sum of all the even numbers from the given list.**

**```**

**numbers = [12, 75, 150, 180, 145, 525, 50]**

**```**

Ans –

num = [12, 75, 150, 180, 145, 525, 50]

sum = 0

for i in range(0,7):

if (num[i]%2==0):

sum = sum + num[i]

print(sum)

**Q24. Write a code to take 3 numbers as an input from the user and display the greatest no as output.**

Ans –

num1 = int(input("Enter the number1: "))

num2 = int(input("Enter the number2: "))

num3 = int(input("Enter the number3: "))

if (num1 >= num2) and (num1 >= num3):

largest = num1

elif (num2 >= num1) and (num2 >= num3):

largest = num2

else:

largest = num3

print("The largest number is", largest)

**Q25. Write a program to display only those numbers from a list that satisfy the following conditions**

**- The number must be divisible by five**

**- If the number is greater than 150, then skip it and move to the next number**

**- If the number is greater than 500, then stop the loop**

**```**

**numbers = [12, 75, 150, 180, 145, 525, 50]**

**```**

Ans –

a = [12, 75, 150, 180, 145, 525, 50]

b = []

for i in a:

if i > 150:

if i > 500:

break

continue

if i % 5 == 0:

b.append(i)

print(b)