**## Assignment Part-1**

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

It is interpreted language,It is simple and easily understanding,it is known for its ease of readability and it is close to human language english and not like machine language

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

Programmer don’t need to declare the type of variable,so python don’t need to know the type of variable untill the code is run

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

Pros: 1. Easy to read and coding

2.Dynamically typed language

3.More Libraries

4.Interpretend language : The code gets executed line by line so if there is any error at any line it stops there and shows error ,so it will be easy for debugging

Cons: 1.Python is comparatively slow at runtime so it is not ideal for mobile app and gaming purpose

2.High memory consumptions due to the flexibility of data types

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

\*. Data Engineering

\*.Data science

\*.Automation

\*. AI and Machine Learning

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

A variable is used to store information.A variable must statr with a letter or underscore it must not start with number

Ex: abc123 right

\_abc right

123abc wrong

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

user\_input = input(‘what is your age’)

print(user\_input)

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

String type

**Q8. What is type casting?**

Converting one data type to another is string type

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

No

**Q10. What are keywords?**

These are Reserved words in python which cannot be used as Variables they are used to define syntax and structure of python

Ex; if,else,print,and,not,true,false

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

No.

These are Reserved words in python which cannot be used as Variables they are used to define syntax and structure of python

Ex; if,else,print,and,not,true,false

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

Indentation is the white space added at the beginning of statements

The use of indentation is to group the statements into a code block

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

By using print() function

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

Operators are symbols which are used to do some sort of computation

Different types of operators are:

1.Arthmatic operators

2.Assignment Operators

3.Logical operators

4.Comparision operators

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

/ Standard division which always returns a float number Ex : 6/2 = 3.0

// Rounds the result to nearest whole number Ex: 9/2 = 4

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

**```**

**iNeuroniNeuroniNeuroniNeuron**

**```**

Soln : multi\_string= 'iNeuron' \* 4

print(multi\_string)

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

user\_input =int(input('Enter a number '))

if user\_input % 2 == 0:

print('Even Number')

else:

print('Odd Number')

**Q18. What are boolean operator?**

To Know whether an expression is True or False boolean operator is used

True

False

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

**```**

1 or 0 = True

0 and 0 = False

True and False and True = False

1 or 0 or 0 = True

```

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

Conditional statements are used to perform a set of actions depending on the conditions specified by the programmer

Ex : If ,elif and else

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

If condition : is used to return one value if acondition is true another value if it is false

elif condition : is the extension of if condition ,now if statement is false then elif statement is checked

else : When both if and elif conditions are not satisfied then else condition is executed and the programme ends

**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".**

user\_age = int(input('Enter your age '))

if user\_age >= 18:

print('U can vote')

else:

print('U cant vote')

**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]**

**```**

**Soln :**

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

even\_sum = 0

for i in range(0, len(numbers)):

if i%2 == 0:

even\_sum += numbers[i]

print(even\_sum)

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

num1 = float(input("Enter first number: "))

num2 = float(input("Enter second number: "))

num3 = float(input("Enter third number: "))

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]**

```

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

for i in numbers :

if i%5 !=0 :

continue

elif i>150:

continue

elif i > 500:

break

print(i)