**ASSIGNMENT 1(PYTHON)**

Q1. Why do we call Python as a general purpose and high-level programming language?  
**Ans** : Because they are not written in machine-readable language, Python programs need to be processed before machines can run them. Python is an interpreted language. This means that every time a program is run, its interpreter runs through the code and translates it into machine-readable byte code.

Q2. Why is Python called a dynamically typed language?  
**Ans** : Because the type of the variable is determined only during runtime.

Q3. List some pros and cons of Python programming language?  
**Ans :  
Pros :** 1) Code Is Easy to Read And Maintain  
 2) Powerful Standard Library  
 3) ) Free and Open-Source  
**Cons :** 1) Weak in Mobile Computing  
 2) poor memory efficiency

Q4. In what all domains can we use Python?  
**Ans** : artificial intelligence, machine learning and deep learning, data scientist, Software Development and Testing.

Q5. What are variable and how can we declare them?  
**Ans :** Numbers(Int,Float,Long), String(str), List([]), Tuple(()).

Q6. How can we take an input from the user in Python?  
**Ans :** variable = input(“Enter something : ”).

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

Q8. What is type casting?  
**Ans :** Type Casting is the method to convert the variable data type into a certain data type in order to the operation required to be performed by users.

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

**Ans :** Yes, By Using input(“enter multiple value:”).split()

Q10. What are keywords?  
**Ans** : print,break, continue, true, false, and, or, not, for, while, def, class, if, else, elif…

Q11. Can we use keywords as a variable? Support your answer with reason.  
**Ans : No**

Q12. What is indentation? What's the use of indentaion in Python?  
**Ans** : Indentation refers to the spaces at the beginning of a code line. Python uses indentation to indicate a block of code.

Q13. How can we throw some output in Python?  
**Ans** : Using print statements. Print(“hello world”)

Q14. What are operators in Python?  
**Ans** : Arithmetic operators,Assignment operators,Comparison operators,Logical operators…

Q15. What is difference between / and // operators?  
**Ans** : / = Integer Division, // = floor division

Q16. Write a code that gives following as an output.  
iNeuroniNeuroniNeuroniNeuron  
**Ans : fieldName = 'iNueron'**

**print(fieldName\*4)**

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 A Number :'))  
if (num%2)==0 :  
 print("Given Input number is Even : ",num)  
else :  
 print("Given Input number is Odd : ",num)**

Q18. What are boolean operator?  
**Ans** : Boolean Operators are those that result in the Boolean values of True and False.

Q19. What will the output of the following?

1 or 0 = True  
0 and 0 = True  
True and False and True = False  
1 or 0 or 0 = True

Q20. What are conditional statements in Python?  
**Ans** : If,else,elif

Q21. What is use of 'if', 'elif' and 'else' keywords?  
**Ans** : if, elif, else are conditional statements that provide you with the decision making that is required when you want to execute code based on a particular 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 Age os the Voter :'))**

**if age >=18 :**

**print("I can vote where my Age is : ",age)**

**else :**

**print("I can't vote where my Age is : ",age)**

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

**sum = 0**

**for i in numbers :**

**if (i%2)==0 :**

**sum = i + sum**

**else:**

**print(i," is not a even Number")**

**print("Sum of Even Numbers : ",sum)**

Q24. Write a code to take 3 numbers as an input from the user and display the greatest no as output.  
**Ans** :   
**number1=int(input("Enter Number1 : "))**

**number2=int(input("Enter Number2 : "))**

**number3=int(input("Enter Number3 : "))**

**if (number1 >= number2) and (number1 >= number3):**

**greatest = number1**

**elif (number2 >= number1) and (number2 >= number3):**

**greatest = number2**

**else:**

**greatest = number3**

**print("The greatest number is", greatest)**

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

**for i in numbers :**

**if (i%5)==0 :**

**print(i,'is Divisible By 5')**

**if i>500 :**

**print(i,'is greater Than 500')**

**break**

**elif i>150:**

**continue**

**else:**

**print(i,'is less Than or Equals to 150')**

**else:   
 print(i,'is not divisible by 5')**