## Assignment Part-1

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

Ans: Python is called as a high-level language due to it’s easy to understand syntax, functions and libraries. Humans can easily code in python and compile it to machine readable language.

Q2. Why is Python called a dynamically typed language?

Ans: Python is called a dynamically typed language as the variable type is checked at the runtime. It gives us freedom to assign the value of a different data type to a same variable .

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

Ans: Pros of python:

1. It is easy to understand.
2. It is free and open source.
3. It is Portable
4. It is a high level language.

Cons Of Python:

1)It is slow as compared to other high level languages as it uses interpreter which checks error line by line.

2)It has a very high memory consumption .

3)it gives more runtime errors.

Q4. In what all domains can we use Python?

Ans: 1) Artificial Intelligence and Machine learning

2)Web Development

3)Data Science

4)Gaming

5)Desktop GUI

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

Ans : Variable is the name given to a memory location. We can declare them by assigning the values.

Example: a=5

Here a is a variable containing value 5.

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

Ans : We can take input from the user by using input() function.

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

Ans: String data type.

Q8. What is type casting?

Ans : Changing the data type of the variable is called as typecasting.

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

Ans: No, we cannot take more than one input from the user using single input() function because one input function takes only one input. If we want to take multiple inputs from the user then we can use input() function in different lines of the code.

Ex: a=input(“Enter your name:”)

b= input(“Enter your rollno:”)

Q10. What are keywords?

Ans: Keywords are the special reserved words in the python.

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

Ans: No, we cannot use keywords as a variable as they have predefined meaning. If we do so then it might break your program.

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

Ans: Indentation means the space at the beginning of the code line. In python, indentation is used to indicate a block of code.

Q13. How can we throw some output in Python?

Ans: We can get output in python using print() function.

Q14. What are operators in Python?

Ans: In python, operators are special symbols that designate some sort of computation should be performed. The different operators in python are:

1. Assignment Operator
2. Numerical Operator
3. Logical Operator
4. Comparison Operator

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

Ans: ‘/ ‘operator is division, it divides the first number with second number and gives the result in whole number or decimal point whereas ‘//’ operator is floor division operator, it divides the first number with second and gives the nearest whole number to the result.

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

```

iNeuroniNeuroniNeuroniNeuron

```

Ans: a= “iNeuron”\*4

print(a)

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

Ans: a=int(input(“Enter a number:”))

If ( a %2)==0:

print(“The given number is even”)

else:

print(“The given number is odd”)

Q18. What are boolean operator?

Ans : Boolean Operators are the operators used to represent the truth value of the expression.

Q19. What will the output of the following?

```

1 or 0

0 and 0

True and False and True

1 or 0 or 0

```

Ans: 1) 1

2) 0

3) False

4) 1

Q20. What are conditional statements in Python?

Ans: The conditional statements guide the program while making decision based based on the conditions encountered by the program.

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

Ans: **If**: The if keyword is used to create conditional statements (if statements), and allows you to execute a block of code only if a condition is True.

**Elif** : Else of is used to execute the condition if it is true as well as false.

**Else**: The else keyword is used to create conditional statements (if statements), and allows you to execute a block of code only if a condition is False.

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

if (a >= 18):

print("I can vote")

else:

print("I can't vote")

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

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

```

Ans: num\_list= [12, 75, 150, 180, 145, 525, 50]

sum\_list =0

for num in num\_list:

sum\_list= sum\_list+ num

print("Total sum of the list is=",sum\_list)

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

Ans: a = int(input("Enter the first number"))

b = int(input("Enter the second number"))

c = int(input("Enter the third number"))

if (a >= b) and (a >= c):

print("a is largest")

elif (b >= a) and (b >= c):

print("b is largest")

else:

print("c 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: num\_list = [12, 75, 150, 180, 145, 525, 50]

for num in num\_list:

if num > 500:

break

elif num > 150:

continue

elif num % 5 == 0:

print(num)