## Assignment Part-1

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

Ans 1. Because the language is not written in machine language and easy to understand for human beings.

Q2. Why is Python called a dynamically typed language?

Ans 2. Because python don’t have any problem if we not declare the type of variable. It state the type of variable at the running time of program.

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

Ans 3. **Pros**

It is easy to understand.

Easy to learn and read.

Enhance productivity.

Vast collection of libraries.

Python is free.

**Cons**

Speed limitation.

Run time error.

Consume lots of memory space.

Not easy to test.

Q4. In what all domains can we use Python?

Ans 4. Python is used in following domains:-

* Web development
* Artificial intelligence
* Machine learning
* Deep learning
* Gaming

Data science ,etc.

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

Ans 5. The variable always contain two components: the type of variable and its name.

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

Ans 6. Ex,

name = input("what is your name?: ")

age = input("how old are you?: ")

print("hellow"+name)

print("you are"+age+"year old")

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

Ans 7. String data type.

Q8. What is type casting?

Ans 8. It is a method to convert the variable data type into certain data type in order to the operation required to be performed by user.

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

Ans 9. Yes , we can take more than one input from the user using single input() function by using split method.

Q10. What are keywords?

Ans 10. Keywords are predefined, reserved words used in Python programming that have special meanings to the compiler. We cannot use a keyword as a variable name, function name, or any other identifier. They are used to define the syntax and structure of the Python language.

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

Ans 11. Keywords can’t be used as an identifier, function and variable . If you attempt to use any of these reserved keywords as variable names in your application, you will see a **compile time error.**

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

Ans 12. Indentation in Python refers to the (spaces and tabs) that are used at the beginning of a statement. The statements with the same indentation belong to the same group called a **suite**.

j = 1

while(j<= 5):

    print(j)

    j = j+1

output :

1

2

3

4

5

Q13. How can we throw some output in Python?

Ans 13.

a**=**12

b**=**12

c**=**2022

**print**(a,b,c,sep**=**"-")

output

12-12-2022

Q14. What are operators in Python?

Ans 14. In Python, operators are special symbols that designate that some sort of computation should be performed.

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

Ans 15. / is for float division.

// is for integer division.

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

```

iNeuroniNeuroniNeuroniNeuron

```

Ans 16. multiply\_numeric\_str = "iNeuron"\*4

print("Multiply numeric str = ", multiply\_numeric\_str)

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

Ans 17. num = int(input("Enter a number: "))

if (num % 2) == 0:

   print("{0} is Even".format(num))

else:

   print("{0} is Odd".format(num))

output

abc@1734dc5bcf76:~/workspace$ /bin/python "/config/workspace/.vscode/python practice.py"

Enter a number: 24

24 is Even

Q18. What are boolean operator?

Ans 18. Boolean is **type of value that can be either True or False** . In Python, the Boolean type is bool , which is a subtype of int . Boolean values are the values True or False (with a capital T and F) in Python.

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 = False

```

Q20. What are conditional statements in Python?

Ans 20. A conditional statement as the name suggests itself, is used to handle conditions in your program.

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

Ans 21. 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. The if… elif…else statement used in Python helps automate that decision making process.

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 22. age = int(input("enter your age ="))

if age>=18:

   print("I can vote")

if age<18:

   print("I can't 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]

Ans 23. numbers = [12, 75, 150, 180, 145, 525, 50]

sum = 0

for val in numbers:

   if val%2==0:

      sum = sum+val

print("sum of even number is =",sum)

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

Ans 24. num1 = 12

num2 = 22

num3 = 20

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

   largest = num1

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

   largest=num2

else :

   largest=num3

print("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 25. numbers = [12, 75, 150, 180, 145, 525, 50]

for i in numbers:

   if i>500:

      break

   if i%5==0 and i>150:

    print(i)

output = 180.