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

**Ans**-Python is an object-oriented, high-level programming language. Object-oriented means this language is based around objects (such as data) rather than functions, and high-level means it's easy for humans to understand.

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

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

**Ans-** **The pros of Python**

* Python is easy to learn and read
* Python enhances productivity
* Python has a vast collection of libraries
* Python is free, open-source, and has a vibrant community
* Python is a portable programming language
* Python is an interpreted language

**The cons of Python**

* Poor Memory Efficiency
* Slow Speed
* Database Access
* Weak in Mobile Computing
* Runtime Errors

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

**Ans-** **Uses of Python**

* Web Development.
* Data Science.
* Artificial Intelligence and Machine Learning.
* Enterprise Applications.
* Education Sector.
* Web Scraping Applications.
* Game Development.
* Software Development.

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

**Ans-** variable is a reserved memory location to store values. In other words, a variable in a python program gives data to the computer for processing. Every value in Python has a datatype.

Declaration of Variables. Variables are the basic unit of storage in a programming language. These variables consist of a data type, the variable name, and the value to be assigned to the variable. Unless and until the variables are declared and initialized, they cannot be used in the program

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

**Ans-**

**1.** name = input ("Enter your name: ") # String Input

**2.** age = int (input ("Enter your age: ")) # Integer Input

**3.** marks = float (input ("Enter your marks: ")) # Float Input

1. **Print** ("The name is:", name)
2. **Print** ("The age is:", age)
3. **Print** ("The marks is:", marks)

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

**Ans-** String, everything that you input () will be a 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. In this article, we will see the various technique for typecasting. There can be two types of

**Type Casting in Python**

Implicit Type Casting

Explicit Type Casting

**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 1 input using single input() function by using split() function.

**Q10. What are keywords?**

**Ans-** Python keywords are special reserved words that have specific meanings and purposes and can't be used for anything but those specific purposes.

**Q11. Can we use keywords as a variable?**

**Ans**- **No As** the reserved words are only for the intended purposes it cannot be used for any other purpose

**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. Where in other programming languages the indentation in code is for readability only, the indentation in Python is very important. Python uses indentation to indicate a block of code

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

**Ans-** The basic way to do output is the print statement. Using print () function.

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

**Ans-** In Python, operators are special symbols that designate that some sort of computation should be performed. The values that an operator acts on are called operands

In Python, there are seven different types of operators: arithmetic operators, assignment operators, comparison operators, logical operators, identity operators, membership operators, and boolean operators

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

/ - Division which provides Decimal values // - Floor Division which provides integer values as output

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

**iNeuroniNeuroniNeuroniNeuron**

str1 = "iNeuron" print('') print(str1\*3) print('')

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

**Ans-** num1 = int(input("Enter the Number:")) if num1%2==0: print("Even") else: print("Odd")

**Q18. What are boolean operator?**

**Ans-** Boolean operator is used to represent the truth value of an expression.

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

**1 or 0**

Ans : 1

**0 and 0**

Ans : 0

**True and False and True**

Ans: False

1 or 0 or 0

Ans : 1

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

**Ans-** Used to handle conditions in the program. It can be if, if-else.

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

**Ans-** if - if any condition is satisfied elif - This is Else If if previous condition does not satisfy, need to validate if this gets satisfied. else - If all other conditions does not satisfy, this will be executed.

**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")

else:

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]**

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

numbers1 = []

temp = 0 for i in numbers:

if i%2==0:

numbers1.append(i) for i in numbers1:

temp = temp + i

print(temp)

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

num1,num2,num3 = input("Enter 3 numbers: ").split()

num1 = int(num1)

num2 = int(num2)

num3 = int(num3)

print(num1)

print(num2)

print(num3)

print(max(num1,num2,num3))

**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]

numbers1 = []

for i in numbers:

if i%5==0:

numbers1.append(i) if i>150:

numbers1.remove(i) if i>500:

break

for i in numbers1:

print(i)