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

**Ans:-** Python is an object-oriented, language. and high-level programming language because it's easy to understand for humans.

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

**Ans:-** Python it is a dynamically typed language because a variable is simply a value bound to a name; the value has a type -- like "integer" or "string" or "list" -- but the variable itself doesn't.

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

**Ans:-**  Pros:-

easy to learn and read

vast collection of libraries

Open source with a vibrant Python community

Python is portable, which means it can be run on any other platform

Python is scalable, and many apps are in the market to prove it.

Python is extremely flexible and can be extended to other languages

Cons:-

Python is slow compared to other non-compiled languages

It is a dynamically typed language

Python is unsuitable for complicated designs.

Python suffers from high memory consumption.

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

**Ans:-** Python Programming Provides so many set of Libraries. So that Python

Programmers are re-using the pre-defined code and in program development that’s why all domain use python.

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

**Ans**: :- variables in Python work as pointers to objects. This means they’re not restricted to a specific type and can be assigned dynamically. In Python, we need not declare a variable with some specific data type. Python has no command for declaring a variable.Thus, declaring a variable in Python is very simple.

• Just name the variable

• Assign the required value to it

• The data type of the variable will be automatically determined from the value assigned, we need not define it explicitly.

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

**Ans**:- Python user input from the keyboard can be read using the input() built-in function. The input from the user is read as a string and can be assigned to a variable. After entering the value from the keyboard, we have to press the “Enter” button. Then the input() function reads the value entered by the user.

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

**Ans:-** In Python, we implement the input() function to get user input. The input function translates whatever you give it as input into a string. Even if an integer value is entered, the input() method accepts it as a string.

**Q8. What is type casting?**

**Ans:-** To convert one data type into another data type, we use the typecasting in python

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

**Ans:- YES,** With the help of the split () function, developers can easily collect multiple inputs in[Python](https://www.upgrad.com/blog/career-opportunities-in-python/) from the user and assign all the inputs to the respective variables.

**Q10. What are keywords?**

**Ans**:- Keywords in Python are reserved words that can not be used as a variable name, function name, or any other identifier.

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

**Ans:-** 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. All the keywords except True , False and None are in lowercase and they must be written as they are.

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

**Ans:-** Indentation in general means indenting words or spaces or lines in the document. The identification of a block of code in Python is done using Indentation.

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

**Ans:-** you want Python to throw a custom exception for error handling. You can do this by checking a condition and raising the exception, if the condition is True. The raised exception typically warns the user or the calling application.

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

**Ans:-** The operator can be defined as a symbol which is responsible for a particular operation between two operands.

* Arithmetic operators
* Comparison operators
* Assignment Operators
* Logical Operators
* Bitwise Operators
* Membership Operators
* Identity Operators

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

**Ans**:- This (/ operators) always giving output as float and second // operators always giving output as int.

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

**```**

**iNeuroniNeuroniNeuroniNeuron**

**` `**

**Ans:- 'iNeuroni' \* 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("{0} is Even".format(num))**

**else:**

**print("{0} is Odd".format(num))**

**Q18. What are boolean operator?**

**Ans:-** Boolean operator giving output in True or False**.** The logical operators  also referred to as boolean operators.

**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:- True**

**```**

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

**Ans:-** conditional statements control the **flow** of the code and allow the computer to think. Hence, they are classified as **control structures.**

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

**Ans:-** The if, elif, else structure is a common way to control the flow of a program, allowing you to execute specific blocks of code depending on the value of some data

**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=(input("age of person: "))**

**if 18>= 18:**

**print("I can vote",age)**

**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]**

**Ans:- def sum\_even\_and\_even\_index(arr,n):**

**i = 0**

**sum = 0**

**for i in range(0,n,2):**

**if (arr[i] % 2 == 0) :**

**sum += arr[i]**

**return sum**

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

**n = len(arr)**

**print("Sum of even numbers at ",**

**"even indices is ",**

**sum\_even\_and\_even\_index(arr, n))**

**Sum of even numbers at even indices is 212**

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

**Ans:-** 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]**