1. Ans- Python is an object-oriented, high-level programming language. Object-oriented means this language is based around creating the object rather than functions, and high-level means it is easy for humans to understand. That’s why we call python as a general purpose high level programing language.
2. Ans- In Python, you don't need to define a variable type. You can use variable  
   directly, because type checking is performed during program execution. The  
   interpreter checks the program line by line and also checks the data types of variables.
3. Ans-

Pros-

1. Easy to learn and easy to code.  
2. Python is a very readable language due to its syntax.  
3. Python supports procedure-oriented and object-oriented programming. Programs built around objects combine data and functions into object-oriented programming  
4. Python requires far less coding than other programming languages ​​to accomplish simple tasks  
5. Can speak Python in C/C++ - provides "scripting" functionality to users of programs embedding programs.

Cons-

1. Python has issue with design.
2. Python is slower than compiled languages.
3. Python is less Security.
4. Python is High memory consumption.
5. Python is Garbage collection leads to potential memory losses.
6. Ans-

• Machine learning / Artificial intelligence

• Desktop GUI

• Data analytics and data visualization

• Web development

• Game development

• Mobile app development

• Embedded systems

1. Ans-

In Python there is no command or need to declaer variables. A variable is simply a name given to a memory location, and all operations performed on a variable affect that memory location. Just declare the value you assign to the variable like (int, str, float, Boolean) and then check the data type you assign to the variable with the "type" function.

1. Ans-

In python we display input like,

We can use input() function.

Name=input()

Age=input()

Print(“user name =”name)

Print (“user age=”age)

Another way to take input from user message

Name=input(“enter value for name=”Name)

Age=input(“enter vale for age=”Age)

1. Ans-

By default, input returns a string. So the name and age will be stored as strings

1. 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.

integer\_number = 123

float\_number = 1.23

new\_number = integer\_number + float\_number

# display new value and resulting data type

print("Value:",new\_number)

print("Data Type:",type(new\_number))

1. Ans-

The **split()** method is useful for getting multiple inputs from users

input().split(separator, maxsplit)

Parameter -

The Separator parameter separates the input with the specified separator. By default, a space is the specified separator.

The split() method is used to split a Python string, which can be used to get multiple values.

Example:-

# taking two inputs at a time

a, b, c = input("Enter three values: ").split()

print("Enter Your First Name: ", a)

print("Enter Your Last Name: ", b)

print("Enter Your Class: ", c)

print()

1. Ans-

Python keywords are special reserved words that have specific meanings and purposes and can only be used for specific purposes. These keywords are always available and do not need to be imported into your code.

Examples

break, continue, true, false, and, or, not, for, while, def, class, if, else, elif, import, from, except, exec, print, return, yield, lambda, global, etc.

1. Ans-

Keywords cannot be used as variable names, function names, or other identifiers. They are used to define the syntax and structure of the Python language. All keywords except True, False, and None are lowercase and must be written as is. Here is a list of all keywords.

1. Ans-

Indentation refers to the space at the beginning of a line of code. In other programming languages, code indentation is only for readability, but in Python indentation is very important. Python uses indentation to show blocks of code.

1. Ans-

In Python, use the print() function to print data to the screen. Sometimes we want to get

input from the user. This can be done using the input() function.

1. Ans-

Python divides the operators in the following groups:

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

1. Ans-=

In Python programming, division can be used in two ways. The first is the floating point number("/") like value in decimal format, and the second is the integer division ("//") value of a regular number.

1. Ans-

name = ("ineuron")

multiple\_name=name \* 4

print(“multiple name=”,multiple\_name)

1. Ans-

number = int(input("enter your number "))

if (number % 2) == 0:

print("the number is even")

else:

print("the number is odd")

1. Ans-

The logical operators and, or and not are also called Boolean operators. The 'and' and 'or' operators require two operands that evaluate to 'true' or 'false', whereas the 'not' operator requires two operands that evaluate to 'true' or 'false'. An operand is required. Boolean operators and operators return true if both operands return true.

1. Ans-

FALSE

TRUE

FALSE

TRUE

1. Ans-

Conditional statements, as the name suggests, are used to handle conditions within a program. These statements guide the program, making decisions based on the conditions it encounters. Python has three important conditional statements to know.

(If , else, elif)

1. Ans-

if statement=

If the condition following the if keyword evaluates to true, the code block is executed.

Note that we don't use parentheses around condition checks like we do in other languages.

Else Statement=

You can optionally add an else response that will be executed if the condition is false.

elif statement=

You can check multiple conditions by including one or more elif checks after the first if statement

1. Ans-

Age = int(input("enter your age:"))

if Age >=18:

print("i can vote")

else:

print("you are a child")

1. Ans-

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

sum=0

for i in l:

if i%2==0:

sum+=i

print(sum)

1. Ans-

a = int(input("enter your first number-"))

b = int(input("enter your second number-"))

c = int(input("enter your third number-"))

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

print(a)

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

print(b)

else:

print(c)

1. Ans-

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

for i in numbers:

if i > 500:

break

elif i > 150:

continue

elif i % 5 == 0:

print(i)