Python Assignment – 1

Q.1) Why do we call Python as a general purpose and high-level programming language?

Ans.) Python is called as a general purpose and high-level programming language because python can be used everywhere in all domain so it is called general purpose, and it is programmer friendly we don’t care about low level activity like memory management and security etc. so it is also called high-level programming language.

Q.2) Why is Python called a dynamically typed language?

Ans.) Python called a dynamically typed language because in python we don’t require to declare type for variable. Python can easily understand based on the assign the value to the variable declared, it is easily understand which type of variable are, so python is called a dynamically typed language.

Q.3) List some pros and cons of Python programming language?

Ans.)

|  |  |
| --- | --- |
| **Pros**   1. Simply and easy to learn 2. Open source and freeware 3. High-level programming lang. 4. Platform independent 5. Portability 6. Dynamically typed 7. Object oriented 8. Interpreted 9. Extensive library | **Cons**   1. Performance wise not up to mark because this is interpreted language. 2. Not using for mobile application. |

Q.4) In what all domains can we use Python?

Ans.) The domains can we use python are:-

1. Data Science
2. Machine learning
3. IOT
4. Desktop application
5. Developing database application
6. Developing games
7. Networking programming
8. Artificial intelligence

Q.5) What are variable and how can we declare them?

Ans.) In python variable are to store the assign value. In python we are not required to data type values explicitly according to assign value provided the type will we assign automatically.

Q.6) How can we take an input from the user in Python?

Ans.) With the help of inbuilt input function we can take the input.

Ex. Input(“Enter your name”)

Q.7) What is the default datatype of the value that has been taken as an input using input() function?

Ans.) String

Q.8) What is type casting?

Ans.) We can convert one type value to another is called type casting.

Q.9) 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 one input from the user using single input() function with the help of for loop and split function.

Ex. a,b = [int(x) for x in input(“Enter the value of x”).split(‘,’)]

Q.10) What are keywords?

Ans.) In python some words are reserved for some meaning or functionality is called nothing but reserved word.

Q.11) Can we use keywords as a variable? Support your answer with reason.

Ans.) No, we can’t take keyword as a variable because keyword is a reserved word which have already given functionality inside it, they aren’t varying to store different values they gives error. So keyword we can’t take as a variable.

Q.12) What is indentation? What's the use of indentation in Python?

Ans.) Indentation are spaces in the python code. The uses of indentation in python are to denote block of code.

Q.13) How can we throw some output in Python?

Ans.) With the help of print() function we can display the output on the screen.

Q.14) What are operators in Python?

Ans.) Operator is a symbol that perform certain operation among the operands.

Python are different types of operator.

1. Arithmetic operator
2. Relational operator
3. Logical operator
4. Bitwise operator
5. Boolean operator
6. Assignment operator

Q.15) What is difference between / and // operators?

Ans.)

|  |  |
| --- | --- |
| **/ operator**   1. This is called division operator. 2. / operator always perform floating point arithmetic. 3. It is always return float values. | **// operator**   1. This is called floor division operator. 2. // operator can perform both floating point and integral arithmetic. 3. If argument are int type then result are int type if one argument are float type then the result will we in float type. |

Q.16) Write a code that gives following as an output.

iNeuroniNeuroniNeuroniNeuron

Ans.)

x = input("Enter any name:- ")

y = x\*4

print(y)

Enter any name:- iNeuron

iNeuroniNeuroniNeuroniNeuron

Q.17) Write a code to take a number as an input from the user and check if the number is odd or even.

Ans.)

x = int(input("Enter any name:- "))

if x%2==0:

    print("Even number")

else:

    print("odd number")

Q. 18) What are boolean operator?

Ans.) Boolean operator are and, or, not and gives result as True or False.

Q.19) 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

False

False

True

Q.20) What are conditional statements in Python?

Ans.) Conditional statement in python works on according to given conditional statements.

There are different types of condition we have implement:-

If

If-elif

If-elif-else

Q.21) What is use of 'if', 'elif' and 'else' keywords?

Ans.) if condition:

Statement

If ‘if’ condition is true then statement will be executed.

elif condition: if first if condition is false then check another condition which is known as elif condition.

else condition: else condition is used when if or elif condition is false.

Q.22) 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 age:- "))

if age>=18:

    print("I can vote")

else:

    print("I can't vote")

Q.23) 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.)

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

sum=0

for x in numbers:

    if x%2==0:

        sum=sum+x

print(sum)

Q.24) Write a code to take 3 numbers as an input from the user and display the greatest no as output.

Ans.)

num1=int(input("Enter the first number"))

num2=int(input("Enter the second number"))

num3=int(input("Enter the third number"))

maximun= num1 if num1>num2 and num1>num3 else num2 if num2>num3 else num3

print(maximun)

Q.25) 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]

for x in numbers:

    if x%5==0:

        if x>150:

            continue

        if x>500:

            break

        print(x)