\*\*\*PYTHON ASSIGNMENT 1\*\*\*

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

ANS: Python is a general purpose language as it performs different types of programs and application (i.e., it provide large number of features for a user). This is an high level language as program are written in human readble language with variety of functions and syntax ,eventually every is program is debugged into machine language (low level language)using an python intepertor .

Q2. Why is Python called a dynamically typed language?

ANS: In python, there is no need of declaring the type of variable or function it will automatically determined after running a program. So it is known as as dynamically typed language.

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

ANS: In python, Pros: Easy to read , learn and implement.

Dynamically typed language

Vast library support

Cons: As it dynamically typed language, execution speed is slow.

Weak in mobile computing.

While computing , it will lack behind in data access.

Q4. In what all domains can we use Python?

ANS: Python is used in different domains: Software development , Data science (analytics or visualization), Web development , machine learning etc.,

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

ANS: Variable is a name given to a specific memory location, we declare it by assignment operator ‘=’.

Ex: a=5 ( here ‘a’ is variable)

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

ANS: In python ,a user can give a input using ‘ input() ’ function.

Ex: age = input ("enter age")

Print("enter age ",age)

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

ANS: Default data type is string.

Q8. What is type casting?

ANS: Type casting is converting from one data type to the other data type using different functions i.e., int(), float(), bool() & str().

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

ANS: yes,using split() function we can take one or more inputs from user.

Q10. What are keywords?

ANS: Keywords are predefined and reserved words . Here are some keywords in python if, else, elif, for etc.,

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

ANS: No, we can’t use keywords as a variable because this are reserved with a logic for implementation of programs.

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

ANS: It refer to the spaces at the beginning of the code,so that it is used to properly structure the code.

Q13. How can we throw some output in Python?

ANS: Output in python can seen using print() function.

Q14. What are operators in Python?

ANS: Python operators are Arithmetic operators (+,-,\*,/,//,%,\*\*), Assignment operators(=,+=,-=,\*=,/=,//=,%=) ,comparison operator (==,!=,>,<,>=,<=) and logical operators(and,or,not).

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

ANS: Operator / used for floating quotient and // used for integer quotient in division

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

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iNeuroniNeuroniNeuroniNeuron

ANS: a= "iNeuron"

print("",a\*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: a= int(input("enter a value"))

if (a % 2 == 0):

    print("given number is even")

else:

    print("given number is odd")

Q18. What are boolean operator?

ANS: Boolean operator are used to check whether given statements are true or false.

Q19. What will the output of the following?

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1 or 0

0 and 0

True and False and True

1 or 0 or 0

ANS: Output 1 or 0 ---1

0 and 0 ----0

True and False and True ---false

1 or 0 or 0 ----1

Q20. What are conditional statements in Python?

ANS: To check the condition of the statements whether its correct or not and print result according to that, theoretically represented in diamond box.

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

ANS: ‘if’—to check whether this statement is correct and print result

‘elif’—to check next statement is correct as previous statement is incorrect

‘else’—print the final statement as all condition doesn’t satisfy.

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: a= int(input("enter a AGE"))

if (a >= 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.

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

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

output = []

result = 0

for i in numbers:

    if i%2==0:

        output.append(i)

        for i in output:

            result= result + i

print(result)

908

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

num1 = input("Enter first number: ")

num2 = input("Enter second number: ")

num3 = 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)

Enter first number: 23

Enter second number: 34

Enter third number: 44

The largest number is 44

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]

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output = []

for i in numbers:

    if i%5==0: output.append(i)

    if i>150: output.remove(i)

    if i>500: break

for i in output:

    print(i)

75

150

145