

python test - 11/11/22.

① what are input and output functions?

ans) input function provides some data to the program, whereas output function provides data to display on screen or a file.

② what are variables? what are the rules for variable names?

ans) variables are information storage unit which can be ~~thar~~ referenced or changed inside the program.

- * variable name should start with alphabet or underscore.

- * it should only contain alpha numeric variable.

- * doesn't start with digit

- * variables are case sensitive.

③ data types in python

ans) data types are used to classify the data items present in a program. they represent some kind of value and ~~and~~ tells the program to perform operations regarding to the data.

data types are. it also contains

① number 'built in data types like

② string int, float, char etc.

③ tuple

④ list

⑤ dictionary

Q) which are the operators in python?

- Ans) ① arithmetic ② relational
③ logical ④ comparison ⑤ Bitwise.

arithmetic operators are used for
~~sum~~ numerical values for performing
mathematical operations like $+$, $-$, $*$, $/$, $\%$ etc.

comparison operators are used to perform
comparison, ~~if~~ between operands.

if two operands are related the relation
will be 1 or else it will be 0.

[$>$, $<$, $=$, $!$, $>=$, $<=$]

* logical operators are used to perform
boolean operation, returns either
true or false

* Assignment Operators: used to check whether
the two operands are of same type.

[$=$, $+=$, $-=$, $*=$, $/=$, $\%=$, $\wedge=$ etc]

* Bitwise operators used to update or
perform changes to operands

[Bitwise AND, OR, XOR etc]

Q) Python control structures? and 3 ways to execute statements.

ans) control structures are used to specify the control flow of a program. control structures analyze the ~~new~~ flow of the program and finds a method based on the conditions provided in the program.

~~for~~ ~~python loops use are~~

there are mainly three types of control structures in python they are:

① Break ② continue ③ pass.

① Break : terminates the loop or block of statements and brings the program control out of the loop. break statements are mainly used in nested loops to terminate the inner loop and to change the control to outer loop.

② continue : skips the execution of current iteration of for loop or block of code and moves the program to its next iteration.

⑤ the pass statement is used when we don't want to execute a condition or a loop.

eg:- a programmer cannot keep a loop empty, it creates error to avoid that situation they use a pass statement.

⑥ what is a python function

ans) A function in python is a group of related statements which are specified to perform a specific task.

① input and output function:

input function collect data to the program whereas output function provides data to display as output or files

② range(): it returns sequence of numbers by default it starts from 0 and increments.

eg:- `range(2, 5)`: this ranges from 2 to 5 of the value

`range(2, 5, 3)`: this shows the increment value of the range is 3

⑦ difference b/w tuple and list.

ans) • both are the data types in python
list uses square brackets `[]` and tuple uses parenthesis `()`.

• list is mutable where as tuple is immutable.