

1. Define python.

Python is a high level, interpreter, interactive and object-oriented, scripting language & dynamically typed language. Python is design highly readable. It uses english keywords. were as other languages punctuations. and it has few syntactical constructions than other languages.

2. List of python applications.

- * web development
- * Game development
- * Scientific and Numeric Application.
- * Software development.
- * Language development.
- * Artificial intelligence & machine learning.

3) Assignment

We use Python Assignment to assign objects names. The target of assignment statement is written on the left side sign(=) and the object on right side can be arbitrary.

4) Key words:-

and, as, assert, break, class, else if, print, return, class, except, del, global.

5) Identifiers

A python identifier is named to identify a variable, function, class, module or other object. An identifier start with letter A to Z, a-z, _ followed by (.) and digits (0 to 9).

6) Comment statement:-

Comments in Python begin with a hash mark (#) white spaces characteristics and continue to the end of the line.

Because comments do not execute, when you run a program you will not see any indication of the comments there. Comments are in source code for human read, not for computer to execute.

7) Variable in Python:-

Variable is a reserved memory location to store value.

In other words, a variable in Python program gives data to the computer for processing.

8) Features of Python

- * easy to read
- * easy to learn
- * easy to maintain
- * A broad standard library.
- * Portable Database

11) What are the rules for naming variables?

- * variable name cannot start with underscore
- * white spaces are not allowed.
- * Do not use variable names that consist of single character.

9) Python Interpreter:-

Python is processed at run time by the interpreter. you don't need to compile your program before executing it. this is similar to Perl & PHP.

12) What are the rules for writing an identifier?

- * An Identifier ^{can't} start with digit
- * key words cannot be used as identifier.

* we cannot use special symbols like !, @, #, \$, % etc.

unit - 1)
1) List the data types in python.

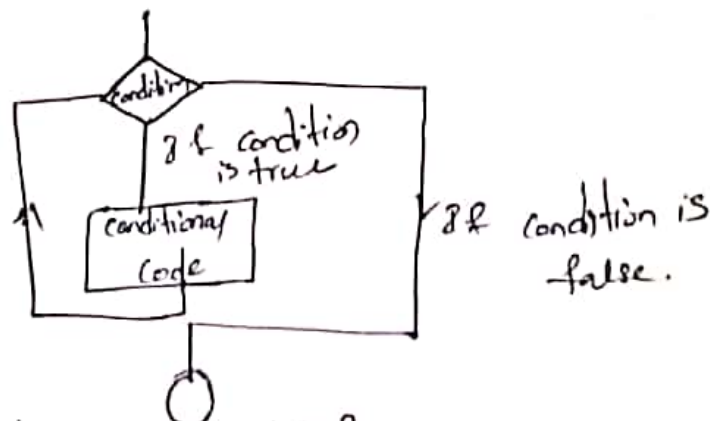
- * Numbers.
- * strings
- * Tuple
- * List
- * Boolean
- * set
- * Dictionary.

2) what are the operators in python:-

- * Arithmetic operator
- * comparison operator
- * Assignment operator
- * Logical operator.
- * Bitwise operator
- * membership operator
- * Identity operator

3) Define while loop.

The while statement in Python programming language repeatedly executes a target statement as long as a given condition is True.



4) what is meant by conditional if?

The if statement is used to control the program flow in a Python Program. This makes it possible to decide at runtime whether certain program parts should be executed or not.

5. Define string. Give example.

A string in a Python sequence of character. It is derived from datatype. string is immutable.

1. swapping of two numbers.

```
x = 5
y = 10
temp = x
x = y
y = temp
```

Print ('The value of x after swapping')

Print ('the value of y after swapping')

2) Python Numbers

Number data type stores Numeric value. Number objects are created when you assign value of them.

- * int
- * float
- * complex

3) Arithmetic operator

Some basic operators are '+', '-', '*', '/', '%'. You can apply these operators as well as perform corresponding operations.

4) Syntax & usage of for loop

A for loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set or string).

This is less like the for keyword in other programming languages.

```
for (i=0; i<n; i++).
```