20 May **Python Basic - 1**

Q.1. What are keywords in python? Using the keyword library, print all the python keywords.

Ans : keywords in a python are reserved words that cannot be used as ordinary identifiers. They are used to define the syntax and structure of the python language.

Keyword to print all python keywords is :

import keyword

print(keyword.kwlist)

All keyword is in the python are as below

['False', 'None', 'True', 'and', 'as', 'assert', 'async', 'await', 'break', 'class', 'continue', 'def', 'del', 'elif', 'else', 'except', 'finally', 'for', 'from', 'global', 'if', 'import', 'in', 'is', 'lambda', 'nonlocal', 'not', 'or', 'pass', 'raise', 'return', 'try', 'while', 'with', 'yield']

Q.2. What are the rules to create variables in python?AA variable name must start with a letter or the underscore character.

Ans: A variable name cannot start with a number.

A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )

Variable names are case-sensitive (age, Age and AGE are three different variables)

Q.3. What are the standards and conventions followed for the nomenclature of variables in python to improve code readability and maintainability?

Ans: A variable name must start with a letter or the underscore character.

A variable name cannot start with a number.

A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )

Variable names are case-sensitive (age, Age and AGE are three different variables)

Q.4. What will happen if a keyword is used as a variable name?

Ans: If you have used keyword as a variable name then you will get syntaxError

Q.5. For what purpose def keyword is used?

Ans: def key word is used for defining functions.

Q.6. What is the operation of this special character ‘\’?

Ans: This statement is used for extend statement over multiple line without syntaxError.

Q.7. Give an example of the following conditions:

1. Homogeneous list :[ “apple”, “,mangoes”, “banana”, “grapes”]
2. Heterogeneous set : [ 20,”alice”, [“apple”, “mango”, “banana”]]
3. Homogeneous tuple :(30,26,46,24,64,53,25)
   1. Explain the mutable and immutable data types with proper explanation & examples.

Ans: Lists are mutable; they can have values added, removed, or changed. Tuples are immutable; they cannot be changed at all. Also, tuples are written using parentheses, ( and ), while lists use the square brackets, [ and ]

* 1. Write a code to create the given structure using only for loop.

\*

\*\*\*

\*\*\*\*\*

Ans:

rows = 5

for i in range(rows):

for j in range (i+1):

print ("\*",end=" ")

print()

* 1. Write a code to create the given structure using while loop.

|||||||||

|||||||

|||||

|||

|

Ans: Code is as below:

for i in range (5,0,-1):

for j in range (1,9-i):

print(" ",end=" ")

for j in range (1,(2\*i-1)+1):

print("|",end=" ")

print("\n")