Python Basic Assignment 20 May

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

Ans:- A Python is a word that serves a specific function in python.It is limited to one single function and it can not be set as a variable name, a function name, or the value of any other identifier. The purpose of the keyword is to define the syntax of the code.

In this example , we import the keyword module and use the kwlist function to print a list of all python keywords. These keywords such as ‘if, else, for, while, and so on

2.What are the rules to create variables in python?

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.

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

Ans:- Common variable Name Rules

Camel Case :- In many programming languages, including C++, Java, and Python, variable names typically follow the Camel Case convention. In Camel Case, variable names start with a lowercase letter, and subsequent words are capitalized.

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

Ans:- There are two main reasons:

It makes the developers life hard and

It makes the compliers life hard

If keywords were allowed as variable names. It would be very hard to tell (for the developers and the compliers) whether something was a variable or a keyword.

For Ex. What does the following mean

If (x == 10)

Is it an if statement, or calling a function called it?

Neither the developer nor the complier would be able to tell.

5. For what purpose def keyword is used?

Ans:- In Python, ‘’def’’ keyword is used to define a function. A function is a reusable block of code that performs a specific task or a set of instructions. It allows you to break down your code into smaller, manageable pieces, promoting code organization, reusability and modularity.

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

Ans:- The backslash (\) escape character typically provides two ways to include double- quotes inside a string literal, either by modifying the meaning of the double -quote chnracter embedded in the string (\’’ becomes’’), or by modifying the meaning of a sequence of characters including the hexadecimal value of a double

7. Give an example of the following conditions:

1 Homogeneous list- All the items are either integer or all float or all string.The lists Even and fruits are example

2 Heterogeneous Set :- Examples of heterogeneous data sets include datasets that contain a mix of numerical values , text strings, dates, and other data types.

3, Heterogeneous Tuple:- Ex. That we have k=list of different fruits

# a fruit list

[‘apple’, ‘ banana’, ‘orange’, ‘pear’]

#a list of ( fruit , number) pairs

[(‘apple’, 3 ), (‘banana’ , 4), (‘orange’, 5), (‘pear’ , 6)

Tuples could be accessed by unpacking , It requires that the number of elements in the sequence.

8. Explain the mutable and immutable data types with proper explanation and Examples.

Ans:- Mutable objects in Python are those that can be changed after they are created , like lists or dictionaries.Ex. Lists, dictionaries, and sets

Immutable objects, on the other hand cannot be changed after they are created, such as strings, integers or tuples.Ex. int, float, bool, string, Unicode and tuple. In simple words , animmutable object cannot be changed after it is created

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

Ans:- # functions to print full pyramid pattern

Def full\_pyramid (n) :

For i in range ( 1, n + 1):

#print leading spaces

For j in range (n – i):

Print ( ‘’ ‘’, end=’’ ‘’)

#Print asteriske for the current row

For k in range ( I , 2\*1):

Print(‘’ \* ’’, end = ‘’ ‘’)

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

Ans:- :

For i in range ( 1, n + 1):

#print leading spaces

For j in range (n – i):

Print ( ‘’ ‘’, end=’’ ‘’)

#Print asteriske for the current row

For k in range ( I , 2\*1):

Print(‘’ \* ’’, end = ‘’ ‘’)