

WORKSHEET 2 PYTHON

Q1 to Q7 have only one correct answer. Choose the correct option to answer your question.

1. Which of the following is not a core datatype in python?

- A) list
- B) struct
- C) tuple
- C) set

Ans- b

2. Which of the following is an invalid variable name in python?

- A) _init_
- B) no_1
- C) 1_no
- D) _1

Ans- c

3. Which one of the following is a keyword in python?

- A) in
- B) _init_
- C) on
- D) foo

Ans- a

4. In which of the following manner are the operators of the same precedence executed in python?

- A) Left to Right
- B) BODMAS
- C) Right to Left
- D) None of these

Ans- a

5. Arrange the following in decreasing order of the precedence when they appear in an expression in python?

i) Multiplication ii) Division iii) Exponential iv) Parentheses

- A) iii – iv – ii – i B) iii – iv – i – ii C) iv – iii – ii – i D) iii – ii – i – iv

Ans- c

6. $(28//6)**3/3\%3 = ?$

- A) 7.1111...
- B) 0
- C) 0.3333...
- D) 1

Ans- c

7. `a = input("Enter an integer")`. What will be the data type of a?

- A) int B) str C) float D) double

Ans- b

Q8 and Q10 have multiple correct answers. Choose all the correct options to answer your question.

8. Which of the following statements are correct?

- A) Division and multiplication have same precedence in python
- B) Python's operators' precedence is based on PEDMAS
- C) Python's operators' precedence is based on VBODMAS
- D) In case of operators' having the same precedence, the one on the left side is executed first.

Ans- a,b,d

9. Which of the following is(are) valid statement(s) in python?

- A) `abc = 1,000,000` B) `a b c = 1000 2000 3000` C) `a,b,c = 1000, 2000, 3000` D) `a_b_c = 1,000,000 .`

Ans- a ,d

10. Which of the following is not equal to `x16` in python?

- A) `x**4**4` B) `x**16` C) `x^16` D) `(x**4)**4`

Ans-

Q11 to Q13 are subjective questions, answer them briefly

11. Differentiate between a list, tuple, set and dictionary.

Ans-

List	Tuple	Set	Dictionary

List is a non-homogeneous data structure that stores the elements in single row and multiple rows and columns	Tuple is also a non-homogeneous data structure that stores single row and multiple rows and columns	Set data structure is also non-homogeneous data structure but stores in single row	Dictionary is also a non-homogeneous data structure which stores key value pairs
List can be represented by []	Tuple can be represented by ()	Set can be represented by { }	Dictionary can be represented by { }
List allows duplicate elements	Tuple allows duplicate elements	Set will not allow duplicate elements	Dictionary doesn't allow duplicate keys.
List can use nested among all	Tuple can use nested among all	Set can use nested among all	Dictionary can use nested among all

Example: [1, 2, 3, 4, 5]	Example: (1, 2, 3, 4, 5)	Example: {1, 2, 3, 4, 5}	Example: {1: "a", 2: "b", 3: "c", 4: "d", 5: "e"}
List can be created using list() function	Tuple can be created using tuple() function.	Set can be created using set() function	Dictionary can be created using dict() function.
List is mutable i.e we can make any changes in list.	Tuple is immutable i.e we can not make any changes in tuple	Set is mutable i.e we can make any changes in set. But elements are not duplicated.	Dictionary is mutable. But Keys are not duplicated.
List is ordered	Tuple is ordered	Set is unordered	Dictionary is ordered (Python 3.7 and above)
Creating an empty list	Creating an empty Tuple	Creating a set	

<code>l=[]</code>	<code>t=()</code>	<code>a=set()</code> <code>b=set(a)</code>	
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12. Are strings mutable in python? Suppose you have a string "I+Love+Python", write a small code to replace '+' with space in python.

Ans - No, strings are not mutable.

13. What does the function ord() do in python? Explain with an example. Also, write down the function for getting the data type of a variable in python.

Ans- Python ord() function takes string argument of a single Unicode character and return its integer Unicode code point value. Eg: ord("A")=65

`a=65`

`type(a)`

`return= int`

Q14 and Q15 are programming questions. Answer them in Jupyter Notebook.

14. Write a python program to solve a quadratic equation of the form $ax^2+bx+c=0$. Where a, b and c are to be taken by user input. Handle the erroneous input, such as 'a' should not be equal to 0.

15. Write a python program to find the sum of first 'n' natural numbers without using any loop. Ask users to input the value of 'n'