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?
   Answer-C) set
2. Which of the following is an invalid variable name in python?
   Answer-C) 1_no
3. Which one of the following is a keyword in python?
   Answer-A) in
4. In which of the following manner are the operators of the same precedence executed in python?
   Answer-A) Left to Right
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

   Answer- C) iv – iii – ii – i

6. (28//6)**3/3%3 = ?
   Answer- C) 0.3333…….
7. a = input("Enter an integer"). What will be the data type of a?
   Answer- B) str

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

8. Which of the following statements are correct?
   Answer-A) Division and multiplication have same precedence in python

D) In case of operators' having the same precedence, the one on the left side is executed first.

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

Answer-A) abc = 1,000,000

B) a b c = 1000 2000 3000

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

Answer- B) x**16

D) (x**4)**4

Q11 to Q13 are subjective questions, answer them briefly

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

Answer- A list is a collection of ordered data. A tuple is an ordered collection of data. A set is an unordered collection. A dictionary is an unordered collection of data that stores data in key-value pairs.

12 . Are strings mutable in python? Suppose you have a string "I+Love+Python", write a small code to replace '+' with space in python.

Answer- Python strings are "immutable" which means they cannot be changed after they are created (Java strings also use this immutable style). Since strings can't be changed, we construct *new* strings as we go to represent computed values. So for example the expression ("I+LOVE+PYTHON"') takes in the 3 strings 'I",LOVE"' and 'PYTHON' and builds a new string 'ILOVEPYTHON'.

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.

Answer-**Python ord() function** returns the Unicode code from a given character. This function accepts a string of unit length as an argument and returns the Unicode equivalence of the passed argument. In other words, given a string of length 1, the ord() function returns an integer representing the Unicode code point of the character when an argument is a Unicode object, or the value of the byte when the argument is an 8-bit string.

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'.