# WORKSHEET 2
## PYTHON

**Q1 to Q8 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
2. Which of the following is an invalid variable name in python?
   A) _init_
   B) no_1
   C) 1_no
   D) _1
3. Which one of the following is a keyword in python?
   A) in
   B) _init_
   C) on
   D) foo
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
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
6. (28//6)**3/3%3 = ?
   A) 7.1111…
   B) 0
   C) 0.3333…
   D) 1
7. Which of the following is not equal to $x^{16}$?
   A) x**4**4
   B) x**16
   C) x^16
   D) (x**4)**4
8. a = input("Enter an integer"). What will be the data type of a?
   A) int
   B) str
   C) float
   D) double

**Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.**

9. 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 same precedence, the one on the left side is executed first.
10. 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

**Q11 to Q13 are subjective questions, answer them briefly**

11. Differentiate between a list, tuple, set and dictionary.
12. Are strings mutable in python? Suppose you have a string "I+Love+Python", write a small code to replace '+' with space in python.
13. What does the function **ord**() do in python? Explain with example. Also, write down the function for getting the datatype of a variable in python.

**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 user to input the value of 'n'.