**WORKSHEET**

1. **Write a Python function that return the sum of a given digit number.**

**Input a number : 43521**

**Expected output:**

**Result: 15**

1. **Write Python function that convert lower letter to upper and upper letter to lower in a string.**

**Input: PrOgRaMM**

**Expected output:**

**Result is: pRoGrAmm**

1. **Write a python function that convert, Celsius value to Fahrenheit value.**

**Hint 1:**

**Formula :- F=9/5(c)+32**

**Input: 10**

**Expected Output:**

**10.0 Celsius is equal to 50 Fahrenheit**

1. **Write a Python function that accepts two numbers from user and return their product If product is greater than 500, then return their sum.**
2. **Write a Python function that check whether the given number is even or odd.**
3. **Write a Python function that sum all the numbers in a list.**

**Sample List : (8, 2, 3, 0, 7)  
Expected Output : 20**

1. **Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.   
   Sample String : 'The quick Brow Fox'  
   Expected Output :  
   No. of Upper case characters : 3  
   No. of Lower case Characters : 12**
2. **Write a Python function that find the middle character(s) of a given string. If the length of the string is odd return the middle character and return the middle two characters if the string length is even.**
3. **Write a Python function that takes a list and returns a new list with unique elements of the first list.    
   Sample List : [1,2,3,3,3,3,4,5]  
   Unique List : [1, 2, 3, 4, 5]**
4. **Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.**

**Sample String : 'The quick Brow Fox'  
Expected Output :  
No. of Upper case characters : 3  
No. of Lower case Characters : 12**

1. **Write a Python program to assess if a file is closed or not.**
2. **Write a Python program to combine each line from first file with the corresponding line in second file.**
3. **Write a function in python to read the content from a text file "software.txt" line by line and display the same on screen.**
4. **Write a Python function that generate a random alphabetical character, alphabetical string and alphabetical string of a fixed length.**
5. **Write a Python program to check if a function is a user-defined function or not. Use types.FunctionType, types.LambdaType().**
6. **Write a Python function that remove duplicates in a string.**

**Hint**

**Input: pythonlobby**

**Expected output**

**Result is: p y t h o n l b**

1. **Write a Python function that count the occurrence of each character in a word.**

**Hint**

**Given x = programm**

**Expected output**

**Occurrence of each characters is :**

**{‘P’: 1, ‘r’: 2, ‘o’: 1, ‘g’: 1, ‘a’: 1, ‘m’: 2}**

1. **Write a Python function that sort letters of word by lower to upper case format.**

**Hint**

**Enter a String: pytHOnloBBy**

**Expected output**

**Result: p y t n l o y H O B B**

1. **Write a Python function that count lower, upper, numeric and special characters in a string.**

**Hint**

**Given x = @pyThOnlobb!Y34**

**Expected output**

**Numeric counts 2**

**Lower counts 8**

**Upper counts 3**

**Special counts 2**

1. **Write Python function that count the occurrence of a specific value in a list.**

**Hint 1  
a = [1,3,3,4,3,2,3]  
Input: 3**

**Expected Output  
3 occurs 4 time**

1. **Write Python function that appends the square of each number to a new list.**

**Hint 1**

**Given x = [2,3,4,5,6,7,8]**

**Expected output**

**Result: [4, 9, 16, 25, 36, 49, 64]**

1. **Write Python function that remove duplicate items from a list.**

**Hint**

**Given num = [2,3,4,5,2,6,3,2]**

**Expected output**

**Result: [2, 3, 4, 5, 6]**

1. **Write Python function that filter odd and even number from a list.**

**Hint**  
Given [2, 23, 24, 51, 46, 67]

**Expected output**  
Even [2, 24, 46] Odd [23, 51, 67]

1. **Write Python function that swap between two numbers without using a third variable.**

**Hint  
Input:  
a = 4  
b = 6**

**Expected Output  
After swapping  
a is 6 and b is 4**

1. **Write Python function that count the occurrence of a specific word in a string.**

**Hint  
string\_ = “john is a boy and john loves to play cricket.”  
Input: “john”**

**Expected Output  
john occurs 2 time**