TASK SHEET

**Variables, Expressions, and Statements**

1. Write a Python program to calculate the BMI (Body Mass Index) given weight in kilograms and height in meters.
2. Write a Python program to convert hours into seconds.
3. Write a Python program to find the perimeter of a rectangle given its length and width.
4. Write a Python program to convert a given number of seconds to hours, minutes, and seconds.
5. Write a Python program to calculate the distance between two points (x1, y1) and (x2, y2) using the distance formula.

**Conditional Execution**

1. Write a Python program to check if a given number is even or odd.
2. Write a Python program to check if a given number is divisible by 5 and 11.
3. Write a Python program to find the smallest of three numbers.
4. Write a Python program to check if a given number is a palindrome.
5. Write a Python program to determine the grade of a student based on their marks using the following criteria:

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: <60

**Functions**

1. Write a function that takes a string as input and returns the string with reversed words.
2. Write a function that takes a number n and returns a list of its divisors.
3. Write a function that takes a string and returns the string with each word capitalized.
4. Write a function that takes a list of numbers and returns the list sorted in ascending order without using the built-in sort() method.
5. Write a function that takes a list of strings and returns a list of strings sorted by their length.

**Loops and Iteration**

1. Write a Python program to find the sum of the first n natural numbers using a for loop.
2. Write a Python program to find the sum of the first n natural numbers using a while loop.
3. Write a Python program to print all the numbers between 1 and 100 that are divisible by 7.
4. Write a Python program to find the greatest common divisor (GCD) of two numbers using a loop.
5. Write a Python program to find the least common multiple (LCM) of two numbers using a loop.

**Strings**

1. Write a Python program to check if a given string is a valid identifier.
2. Write a Python program to count the number of substrings in a given string.
3. Write a Python program to find the frequency of each word in a given string.
4. Write a Python program to convert a given string to title case (first letter of each word capitalized).
5. Write a Python program to check if two strings are rotations of each other.

**Dictionaries and Tuples**

1. Write a Python program to create a dictionary from a list of keys and a list of values.
2. Write a Python program to iterate over a dictionary and print all key-value pairs.
3. Write a Python program to find the key corresponding to the minimum value in a dictionary.
4. Write a Python program to count the frequency of each word in a given text using a dictionary.
5. Write a Python program to merge two dictionaries and keep the values of common keys in a list.

**Lists**

1. Write a Python program to remove duplicates from a list.
2. Write a Python program to find the intersection of two lists.
3. Write a Python program to flatten a nested list.
4. Write a Python program to find the second largest element in a list.
5. Write a Python program to rotate a list by a specified number of elements.