

## MATLAB Programming Assignment

- 1- Write a matlab script file to receive a number from the user and calculate its summation.
- 2- Write a matlab script file to receive a number from the user and calculate its factorial.
- 3- Write a matlab script file to receive a matrix from the user and calculate the sum of all its elements. (without using matlab built in function)
- 4- Write a matlab script file to receive a matrix from the user and calculate the sum of diagonal elements. (without using matlab built in function)
- 5- Write a matlab script file to receive a matrix from the user and calculate the sum of the elements of each column (without using matlab built in function)
- 6- Write a matlab script file to receive a matrix from the user and calculate the sum of the elements of each row (without using matlab built in function)
- 7- Write a matlab function file to receive a matrix as input and find the maximum element in that matrix and its index (without using matlab built in function)
- 8- Write a matlab function file to receive a matrix as input and find the minimum element in that matrix and its index (without using matlab built in function)
- 9- Write a matlab function file to receive a matrix as input and sort (in ascending order) the elements of each column (without using matlab built in function)
- 10- Write a matlab function file to receive a matrix as input and sort (in descending order) the elements of each row (without using matlab built in function)
- 11- Write a matlab function file to receive a matrix as input and sort (in ascending order) all its element and return the sorted matrix as column vector (without using matlab built in function)

12- Write a matlab function file to generate the Fibonacci series for n elements , where n is an input to the function, run the function for n=8.

1 + 1 + 2 + 3 + 5 + 8 + 13 + .....

13- Write a MATLAB function to return the sum and the series elements of the following series until N-terms:

-1+4-9+16-25+36-49 Let the function name is "my\_series"

Then explain how to save and run such function to generate the output until the term N=10