# Faculty of Computers and artificial intelligence

# **Introduction to Python Programming Language**

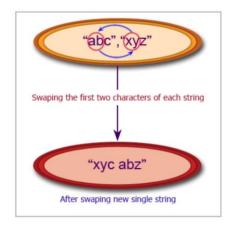
## **Tasks Sheet**

### # Tasks about Print

- 1- Write a program that prints "hello world" message.
- 2- Write a program that concatenates any two strings.
- 3- Write a program that concatenates three strings "Hello" string, your first name, and your last name.

## # Tasks about Strings

- 4- Write a program that converts the given string to upper case. # use upper() function.
- 5- **Write a program that** converts the given string to lower case. # use lower() function.
- 6- Write a program that has a string of your name, first name, and last name such as name="Ahmed Ali". This program output only your first name. #use slicing of string.
- 7- Write a program that creates the below string from another two strings. #use slicing of string. By slicing the corresponding indices from the given strings to create output strings.



#### # Tasks about Numbers

- 8- Write a program that adds two numbers.
- 9- Write a program that multiplies two numbers.
- **10-** Write a program that gives the square of a number. #multiply number by number to create the square.
- 11- Write a program that gives the area of a triangle. #given two values about base, and high of triangle, calculate area which is 0.5 \* base\* high.
- **12-** Write a program that gives the power of a number, and **3.** # raise the number to the power **3**.
- 13- Write a program that swaps two numbers.

### # Tasks about Conditions

- 14- Write a programs the checks if a number is greater than 10 or not.
- 15- Write a programs the checks if a number equals 3 or not.
- 16- Write a program that checks if a number I negative, positive, or zero. #if number is greater than zero, equals zero, or less than zero.
- 17- Write a program that checks if a number is even or odd. #if year is divisible by 2 or not. #Divisible means remainder is zero. Remainder means after we divide on two, is there any remainder.
- 18- Write a program that checks if the year is leap or not. #if year is divisible by 4 or not. Divisible means remainder is zero. Remainder means after we divide on four, is there any remainder.

## # Tasks about Loops

- 19- Write a program that checks if a number is prime or not. #loop through all values in a range starting from 2 to the given number.
- 20- Write a program that create a simple calculator that add/subtract/multiply or divide two numbers. #loop through options. If user enter 1 this means subtract two numbers, If user enter 2 this means add two numbers, and so on for the four options 1->subtract, 2->add, 3-> multiply, and 4-> divide.