AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING

Program of Software

Fall Semester, 2020/2021	**Course Code: *CSE 365***	***Time allowed: 3 Weeks.***

Computer vision

The Exam Consists of **One** Question in **Two** Pages. ***Maximum Marks: 10 Marks*** **1 / 2**

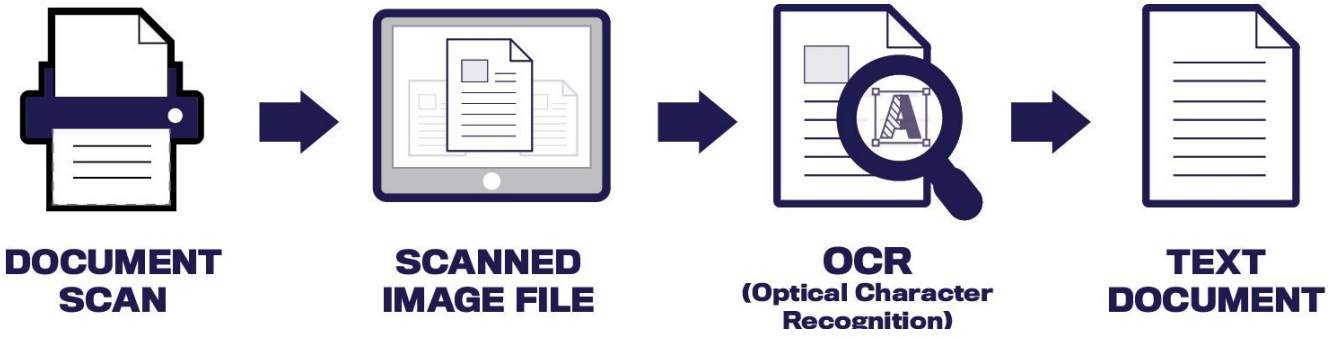
Name:
B.N: **ID:**

Question (1): [10 marks]

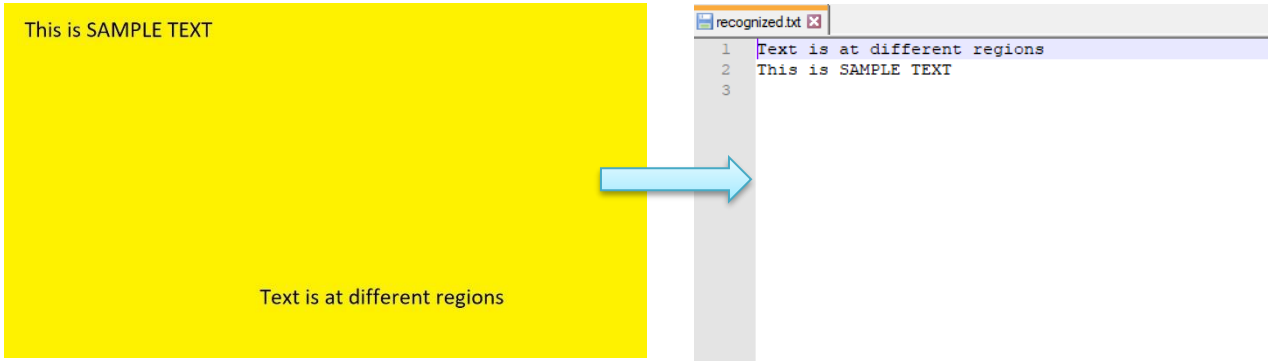
Optical character recognition (OCR) plays an important role in transforming printed materials into digital text files. These digital files can be very helpful to kids and adults who have trouble reading. That's because digital text can be used with software programs that support reading in a variety of ways.

OCR "looks" at the photo (this is why its name begins with "optical") and recognizes the shapes of the different letters, numbers and other characters. It uses character recognition to convert the photo of the document into a text file. In many cases, the digital version will maintain the "look and feel" of the original.

You need to make an OpenCV code to get **your own** captured photo that contains a document in order to make some image enhancements based on the quaity of this image, count numbers of characters, perform an OCR on it, and export these words into a text file.
The following image shows the steps in order to achieve the desired output:



The following image shows a sample from the input image versus the desired output text. You can use images from your lectures, referances, or any scientific source.



Input image output text

Plagiarism is not allowed. You need to use your own photos. You need to deliver at least 5 different images by showing the input and output, your written code “text but not screenshot”, and discussion about your used method.

The grading criteria will be the following:

1- Full written working code that makes the desired code without plagiarism (4 marks)
2- Include any used input and output samples (4 marks)
3- Instructions manual that discusses any needed steps to make the code work, discussing the steps of the code (2 marks)

This project will be delivered within three weeks from the day that is announced.