Spring 2020	Course Code: *CSE 131*	Deadline: *11 June @4 pm*

Computer Programming

تعليمات هامة:

- غير مسموح بالتشابه بين الابحاث المقدمة من الطلاب
- ضرورة مراعاة الامانة العلمية والدقة في عرض المراجع التي تم الاستعانة بها
- ضرورة الالتزام بالقواعد المنصوص عليها المرتبطة بشكل وعدد الصفحات المنصوص عليها بورقة الامتحان
- يتم تجميع ملفات الاجابة في ملف واحد مضغوط ويتم رفعه على صفحة المادة المخصصة على منصة LMS
- ضرورة الالتزام بحجم الملفات المطلوب رفعها وفقا لما هو منصوص عليه بمنصة LMS

Using C/C++ it is required to build a computer application that performs basic matrix operations, the program should interact with the user using command line prompt, the program should allow following operations.

- Allow user to define matrix as following

  a. A = [1.2 2.2 3.1; -4.5 5.4 6.3; 2.3 5.2 4.7]

  b. B = [2.2 4.2 2.1; -4.5 3.4 5.3; 1.2 4.7 4.5]

- Allow user to write simple expressions then shows directly after pressing enter key

  a. Show Matrix Value: A

  b. Addition: C = A + B

  c. Subtraction: C = A - B

  d. Multiplication: C = A * B

  e. Transpose: C = A'

  f. Division: C = A/B

- Users should be able to define any number of matrices or supply any number of operations.

- When the user writes "exit" the program quite.

Conditions:

1. Use Microsoft Visual Studio compiler.

2. Make sure that your project files are complete and can be compiled without errors.

3. Assume any missing information.

AIN SHAMS UNIVERSITY, FACULTY OF ENGINEERING
Computer and Systems Engineering Department, 1st Year, Electrical ENGINEERING

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The instructions are in Two Pages.	2 / 2

Delivery (Files):

- team.pdf:
  - First section list team member's code/name in a table.
  - Explain the duties of each member.
- Folder contains the Microsoft Visual C++ project files.
- Folder contains screenshots of the project while running.
- The student **SHOULD** **print** then **sign** then **scan** the following Plagiarism Statement in a separate file under the delivery folder:

"I certify that this assignment / report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they are books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication. I also certify that this assignment / report has not been previously been submitted for assessment for another course. I certify that I have not copied in part or whole or otherwise plagiarized the work of other students and / or persons."

END of Instructions, Good Luck

Examination Committee   *Submission Deadline: 11th of June, 2020*
Dr. Bassem Amin, Dr. Mohamed Sobh