

كلية الاعلام الفرع الاول الفرع الاول

الامتحانات النهانية للفصل الاول من العام الجامعي 2020-2021

المادة: مبادئ البرمجة المدة: ساعة ونصف الأستاذ: ديوسف الاتات

المرحلة: الاجازة فصل الاول السنة المنهجية: 2020-2021

الاختصاص: علم البيانات

Question 1:

Write a C program that:

a) Declares and fills the elements of an array of integers T[10].

b) Sets to 0 each element of the array T having value equals to its index (its position in the array).

Ex: if T[2] = 2, the program sets T[2] = 0.

Question 2:

Write a C program that:

a) Declares a matrix of integers M[5][5] and fills the elements of M.

b) Reads an integer k $(0 \le k \le 4)$ and then finds the maximum number in the line (row) k.

c) Displays all the elements of the matrix M that are divisible by 5.

d) Displays the sum of the even numbers of M.

Question 3:

Write a C program that reads a positive integer n and then displays the value of the term Un of the sequence (Un) given by:

$$U_n = U_{n-1} + 2*U_{n-2} + 1$$
with $U_0 = 2$, $U_1 = 1$

Question 4:

a) Write a function (void displayDivisors(int n)) that takes as parameter an integer n and displays all the divisors of n.

ex: n=12, the function displays 1, 2, 3, 4, 6, 12.

b) Write a function (int sumPower(int n)) that takes as parameter an integer n and returns as result the sum: $1^1 + 2^2 + 3^3 + \dots + n^n$

Good Luck