



Faculty of Agriculture
Soils Department
Soil & Water Programme
Academic Year 2013/ 2014
Second Semester
Third Level (CH)

Final Theory Exam
Organic Matter Chemistry
Course Code: Sol 318
Total Mark: 60
Time: 2 Hours
Date: 18 / 05 / 2014



The exam consists of (one sheet)

Please answer all the following questions:--

- 1- What are the humic substances?
- 2- Indicate what are the functional groups in the humic and fulvic acids as shown in IR spectra with drawing the spectra.
- 3- Discuss the Hypotheses for the formation of humic substances.
- 4- Fractionate the humic materials from different sources.
- 5- Identify the E_4/E_6 ratio of dilute aqueous HA and FA solutions and what is the magnitude of this ratio?
- 6- What is the meaning of the following Expression:-
a- UV c - ESR
b- IR d- NMR
- 7- Compare between the properties of the HA and FA acids (in a Table).
- 8- What are the Humic Materials consist of?

.....With My Best Wishes.....

Prof. Dr. Ahmed Abdel Kader Taha

Ahmed Taha