
	Tanta University - Faculty of Science - Botany Department			
	Examination for 4 th level Students of chemistry / microbiology			
COURSE TITLE	Introduction to Soil Ecology مقدمة فى علم التربة	COURSE CODE BO4242		
Date, 26 June 2014	TERM: second	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS	

أجب عن الأسئلة التالية

السؤال الأول : وضح كل ممايأتى: (٢٧ درجة)

- ١ - مرحلة الـ Pedogenesis لتكوين التربة. (١٠ درجات)
- ٢ - تكون نطاقات التربة Soil profile . (١٠ درجات)
- ٣ - كيفية تكون الماء مع نشأة الأرض. (٧ درجات)

السؤال الثانى : اكتب ما تعرفه عن: (٢٧ درجة)

- ١ - تكون الشحنات السالبة على سطح حبيبة الطين والذبال (٩ درجات)
- ٢ - أهمية الذبال فى التربة. (٩ درجات)
- ٣ - المعادن الأولية فى التربة. (٩ درجات)


السؤال الثالث: أشرح كل مما يأتى (١٨ درجة)

- ١- الدور الذى تلعبه الكائنات الحية فى التربة (١٢ درجة)
- ٢- التركيب الكيمايى لمعدن الطين Clay minerals. (٦ درجات)

السؤال الرابع: اكتب ما تعرفه عن: (٢٨ درجة)

- a - مصدر المادة العضوية بالتربة ومراحل تحليها. (٩ درجات)
- b - تعريف التربة و أنواعها حسب النشأة (٩ درجات)
- c - العمليات الفيزيائية التى تؤدى الى تكون التربة. (١٠ درجات)

أ د / أحمد شرف الدين

	TANTA UNIVERSITY FACULTY OF SCIENCE		
	DEPARTMENT OF BOTANY		
	EXAMINATION FOR SENIOR (FOURTH YEAR) STUDENTS OF CHEMISTRY-MICRO		
	COURSE TITLE:	MICROBIAL PLANT INTERACTIONS	COURSE CODE: MB4204
DATE:	June: 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100
			TIME ALLOWED: 2 HOURS

Answer the following questions:-

A-Write on 4 of the following:- (35 mark)

- 1-Bacterial wilt disease of tomato caused by *Pseudomonas solanacearum*.
- 2-Stages of microbial plant interaction.
- 3-Disease cycle of *Agrobacterium tumefaciens* and write on secondary tumors.
- 4-Types of root infection caused by nematodes.
- 5-Epiphytotic and etiology.

B- a) Describe the following pathogens and write the mechanisms by which each one cause the disease (35 mark)

- 1-*Pythium*.
- 2-*Plasmodiophora brassicae*.


b) Illustrate two of the environmental factors affecting on the microbial plant interaction.

C-Complete the following :- (30 mark)

- 1-*Pythium overwinter* as....., *Erwinia carotovora* as..... and *Claviceps* as.....
- 2-Disease triangle,.....,.....
- 3-Infection of plant virus depend on and the transmission takes place by.....
- 4-Symptoms of yellow mosaic disease of legumes.....,.....,.....
- 5-Symptoms of ergot disease,.....,..... and mechanism of honey dew formation.
- 6-Bacterial soft rot disease caused byand symptoms on host plant
- 7-Nematodes invade the above ground parts of the plant causing.....
- 8-Pathogen genotype can interact with specific host genotype leading to
- 9-Common mechanisms for plant disease resistance areand.....
- 10-In rust disease, monoecious pathogen.....and heteroecious pathogen.....
- 11-Hemiparasitic higher plants aswhich have.....

Examiner .. Prof.DrOmya Ahmed

With best wishes

TANTA UNIVERSITY, FACULTY OF SCIENCE, BOTANY DEPARTMENT		
Final Examination for Seniors Students (Chem/Micro)		
Course title:	ECONOMIC USES OF ALGAE	Course Code: BO4210
DATE: 16, JUNE, 2014	TERM: SECONDS	TOTAL ASSESSMENT MARKS: 100
		Time Allowed: 2 hours

Answer the following questions:-

I - Complete the followings with correct answers: (30 Marks)

- 1 - Vitamin A activity in *Spirulina* is due to and constitutingof total carotenoids.
- 2 - Vitamin B12 activity derives from cobalt-containing carotenoid substances known as
- 3 - *Spirulina* have a similar linear tetrapyrrole called which attached to protein forming compound known as
- 4 - Most algae contain nucleic acid.
- 5 - Iron and B12 of *Spirulina* used against while Iodine used against.....
- 6 - The best tasting Nori contains high level ofand
- 7 - Chlorellin exhibited inhibitory activity against bothand
- 8 - Extracellular substances produced by algae in a zone around them termed
- 9 - Antimicrobial compounds produced by algae includeand
- 10 - *Sargassum* and *Laminaria* used to treat cancer especially and

II - True or false and correct the false one: (24 Marks)

- 1 - *Spirulina* is rich in provitamin A which not present in plants ().
- 2 - Increased sulphate raised the levels of sulphur containing amino acids in *Spirulina* ().
- 3 - *Spirulina* is a major source of thiamine and riboflavin ().
- 4 - *Spirulina* contain high percentage of nucleic acid ().
- 5 - Extracellular substances produced by algae useful for killing only bacteria ().
- 6 - Fresh water algae in general excellent source of iodine ().
- 7 - Genera of red algae are utilized as raw materials by commercial alginate (X).