 كلية العلوم	Tanta University - Faculty of Science - Botany Department		
	Examination for 2 nd level students of Special Botany		
	COURSE TITLE	Soil Ecolog بيئة التربة	COURSE CODE BO2111
٢٠١٧/١٢/٢٣	TERM: First	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

أجب عن الأسئلة التالية

السؤال الأول : وضح كل مما يأتي: (٢٧ درجة)

- ١ - العمليات الطبيعية Physical processes لتكوين التربة. (١٠ درجات)
- ٢ - تكون نطاقات التربة Soil profile . (١٠ درجات)
- ٣ - أنواع التربة حسب المنشأ. (٧ درجات)

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


- ١ - تكون الشحنات السالبة على سطح حبيبة الطين والدبال (٩ درجات)
- ٢ - الدبال Humus في التربة. (٩ درجات)
- ٣ - التركيب الكيميائي لمعدن الطين Clay mineral. (٩ درجات)

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

- a - خطوات تحليل المادة العضوية والظروف والكائنات التي تقوم بذلك. (٩ درجات)
- b - محلول التربة (٩ درجات)
- c - منطقة الريزوسفير . (٩ درجات)

السؤال الرابع : أشرح كل مما يأتي (١٩ درجة)

- ١- الدور الذي تلعبه الكائنات الحيوانية في التربة (١٠ درجات)
- ٢- صور الماء في التربة. (٩ درجات)

	Tanta University Faculty of Science Department of Botany			
	EXAMINATION for level 2 Students of Chemistry /Botany and special Botany			
Course title:	General Plant Ecology		Course Code: BO 2101	
Date: Jun	2018	Term: FIRST	Total assessment Marks: 150	Time ALLOWED: 2 ours

النظام البيئي

السؤال الأول:- (20 درجة)

أ- مالفرق بين مما يأتي: (10 درجات)

- 1- نظام بيئي مائي وارضى.
- 2- أنماط التوزيع للجماعة مع الرسم.

ب- عرف ما يأتي: (10 درجات)

النترة - الاهرامات البيئية - الانتاجية الثانوية - الدبال - التازوت

السؤال الثانى:- (35 درجة)

أ- أكمل:- (15 درجات)

- 1- مكونات النظام البيئي اللاحيائي هي
- 2- تبدأ السلسلة الغذائية النثرية بـ..... وتنتهي بـ.....
- 3- جماعة الاختيار r هو..... بينما جماعة الاختيار k هو.....
- 4- تعرف الانتاجية الاولى الكلية ب:..... والانتاجية الاولى الصافية ب:.....
- 5- معدل التوالد هو..... ومعدل الوفيات هو.....

ب- قارن بين كل مما يأتي: بالرسم والبيانات فقط. (20 درجة)

- 1- السلسلة الغذائية الرعوية والنثرية.
- 2- الشبكة الغذائية المانية والارضية.
- 3- منحنى النمو الاسي والسيجمويدي للجماعة.
- 4- مسري الطاقة ذو الشعبتين.

السؤال الثالث:- ناقش كلا من : (20 درجة)

- 1- كيفية قياس الانتاجية في النظام البيئي. (10 درجات)
- 2- يمثل التركيب العمري صفة هامة من صفات الجماعة والتي تدل علي الصفات التركيبية العمرية والحجمية للجماعة. اشرح هذه العبارة موضحا الفرق بين التركيب العمري والحجمي للجماعة مع ذكر بعض الاستدلالات لهذه الصفات. (10 درجات)



وحدة ضمان الجودة
كلية العلوم - جامعة طنطا
QUALITY ASSURANCE UNIT
FACULTY OF SCIENCE - TU



Chemistry Department
Faculty of Science
Tanta University

Final Examination for 2nd grade students (Double Major Students)

December 2017, Fall semester

Course title:
Organic Chemistry 1
Course Code: CH2143
Exam time: 2 hours
Assessment Mark: 100 M

Answer ALL the following questions.

- 1- Convert the following (use chemical equations to describe your answer) **(25 Marks, 5 marks each)**
- From Benzene to Picric acid
 - From Phenol to 2,4,6-trinitrotoluene
 - From Toluene to n-propylbenzene
 - From Aniline to meta-bromoaniline
 - From Benzoic acid to para-methyl acetophenone
- 2- Write down about (use chemical equations to describe your answer) **(25 Marks, 5 marks each)**
- Kolbe-schmidt reaction
 - Replacement of sulphonic group of benzenesulphonic acid by other groups (give three examples)
 - Acylation mechanism of nitrobenzene
 - Preparation of Diphenyl thiourea from aniline
 - Mechanism of *para*-hydroxyazobenzene formation
- 3- Explain briefly the following: **(25 Marks)**
- Differentiation between 1°, 2° and 3° aromatic amines **(5 Marks)**
 - The aromaticity of:- **(15 Marks, 3 marks each)**
 - Furan
 - Cyclopentadiene anion
 - Cyclopropyl cation
 - Benzene
 - Anthracene
 - The use of phenylmagnesium bromide to prepare aromatic alcohols **(5 Marks)**
(give three different examples)
- 4- Discuss the following: **(25 Marks)**
- The mechanism of chlorination of phenol, showing why the hydroxyl group is *ortho*- and *para*- directing group. **(5 Marks)**
 - The synthetic route of the following: **(20 Marks, 5 marks each)**
(start from Benzene or Toluene)
 - Halazone
 - Acetanilide
 - ortho*-nitroaniline
 - meta*-chlorobenzoic acid

----- انتهت الأسئلة -----



Good Luck

Examiners: Prof. Dr. Mohamed Berber and Prof. Dr. Abdel Wassef Morsi



ضمان الجودة
جامعة طنطا - كلية العلوم
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FACULTY OF SCIENCE - TU

بكالوريوس العلوم - جامعة طنطا - كلية العلوم - وحدة ضمان الجودة

	BOTANY DEPARTMENT - TANTA UNIVERSITY - FACULTY OF SCIENCE		
Final Examination / Second Year All Levels			
Course Title:	General Genetics	Course Code: BO2105	
30 Dec. 2017	Term: First	Total assessment marks: 150	Time Allowed: 2 hours

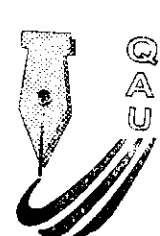
ANSWER THE FOLLOWING QUESTIONS

1. Discuss the role of genes present on somatic chromosomes in sex determination. (20 Marks)
2. How cumulative genes affect the degree of character expression. Explain with an example. (20 Marks)
3. Multiple alleles pattern of inheritance is exemplified in plants ... explain this statement. (20 Marks)
4. There are two types of chromosomal systems in sex determination in different organisms... discuss. (20 Marks)
5. Characters of sex-linked genes differ from characters carried on somatic chromosomes. Explain this statement. (20 Marks)
6. Write on the following: (50 Marks)
 - a. Two changes in chromosome numbers. (10 Marks)
 - b. Pseudoalleles. (10 Marks)
 - c. Significance of Meiosis. (10 Marks)
 - d. Mitotic cell cycle. (10 Marks)
 - e. Types of chromatin materials. (10 Marks)

Examiners:

With our best wishes

Prof. Dr. Adel Elshanshory



Prof. Dr. Reda Gaafar
وحدة ضمان الجودة
كلية العلوم - جامعة طنطا
QUALITY ASSOURANCE UNIT
FACULTY OF SCIENCE - TU

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UNIVERSITY OF TANTA, FACULTY OF SCIENCE DEPARTMENT OF BOTANY			
FINAL EXAMINATION FOR (SOPHOMERS) Second YEAR STUDENTS BOT. & MICRO.			
COURSE TITLE: Cell Biology		COURSE CODE: Bo 2107	
DATE: 1, 1, 2018	TERM: FIRST	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

Answer the following questions:

Question 1:

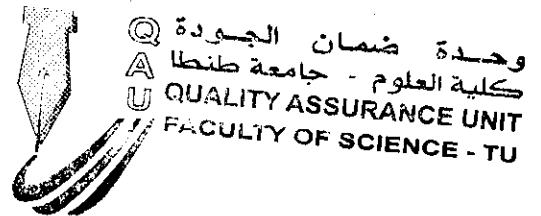
Put (R) in front of wright sentences and (W) in front of wrong ones with correction (15 mark)


- 1- Leucoplasts contain both chlorophyll a and b. ()
- 2- Replication is the production of DNA from RNA. ()
- 3- Deutroplasm is living contents of the cytoplasm. ()
- 4- The fibers of the three layers of secondary cell wall are parallel. ()
- 5- Granum composed of closely packed thylakoids. ()
- 6- Lysosomes are formed by the endoplasmic reticulum. ()
- 7- Cytochrome F is found in the mitochondria outer membrane. ()
- 8- Integral protein is free of lipids. ()
- 9- Peroxisomes are rich in peroxides enzymes. ()
- 10- Centrioles are characteristic of animal cells. ()

Question 2:

Wright shortly on the following with labeled drawings if possible (30 marks)

- 1) Telomeres.
- 2) Protein scaffold.
- 3) The origin of Golgi apparatus.
- 4) Chromosome banding
- 5) Functions of Lysosomes.

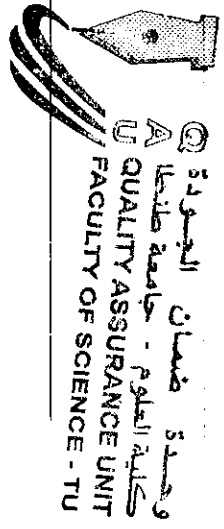


	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF CHEMISTRY			
	EXAMINATION FOR SECOND YEAR STUDENTS			
	COURSE TITLE:	PRINCIPLES OF ANALYTICAL CHEMISTRY		COURSE CODE: CH2105
DATE:	6-1-2018	TERM: FIRST TERM	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

Question (I): State true (✓) or false (✗) and give the reasons for your answer:

(45 Marks)

- 1) The acidic medium is the best one for the titration of sodium oxalate by potassium permanganate.
- 2) The titration of 0.1N sulfurous acid by sodium hydroxide is stepwise. ($K_1=1.2 \times 10^{-2}$, $K_2=5.6 \times 10^{-8}$)
- 3) EDTA can be called chelating agent.
- 4) The normal hydrogen electrode contains titanium sheet.
- 5) SCN^- ions can be determined satisfactory using Mohr's method.
- 6) The titration of 1 N carbonic acid can be titrated. ($K_1=4.2 \times 10^{-7}$, $K_2=4.8 \times 10^{-11}$)
- 7) The pH value in the titration of weak acid against weak base equals $\frac{1}{2} pK_w + \frac{1}{2} pK_a + \frac{1}{2} \log C_{salt}$
- 8) It is possible in Volhard's method to complete titration in presence of AgCl.
- 9) For writing the half cell equation, the reduced form can be written in the left hand.
- 10) Br^- and I^- ions can be determined by Volhard's method without any titration error.
- 11) $HCrO_4^-$ or $Cr_2O_7^{2-}$ ions can be used to detect the end point for the precipitation titration of Cl^- ions using Mohr's method.
- 12) Nernst equation can be applied for the half cell reaction, if the solutions concentration equals 1 N.
- 13) Each of Fe^{3+} and Ca^{2+} can be determined using EDTA titration.
- 14) Lewis acid can be defined as hydrogen acceptor.
- 15) Heating is necessary for Al^{3+} -EDTA titration.

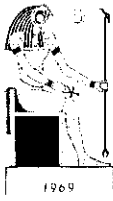



Question (II): Choose the correct answer from each of the following and give the reasons:

(15 Marks)

- 1) Which of these metal ions can be masked using CN^- ions?
 - a) Mg^{2+}
 - b) Zn^{2+}
 - c) Ni^{2+}
- 2) Distinction between a weak acid or strong acid can be made through.....
 - a) Phenolphthalein indicators
 - b) universal indicator
 - c) methyl orange indicator
- 3) For Mercurimetric determination of cyanide,
 - a) Fe^{3+}
 - b) Hg^{++}
 - c) Hg^+ was used as indicator
- 4) Hydrogen acts as a reducing agent,.....
 - a) by taking oxygen
 - b) by giving electrons
 - c) by taking hydrogen
 - d) Both A and B

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	TANTA UNIVERSITY		
	FACULTY OF SCIENCE BOTANY DEPARTMENT		
EXAMINATION FOR SECOND LEVEL STUDENTS (SPECIAL BOTANY)			
Course Title:	Photosynthesis		Course Code: BO2103
Jan 2018	Term: first	Total assessment marks:100	Time Allowed:2 hours

Answer the following questions:

1. Complete the following:

(40 Marks/5 marks each)

- a) Red-drop is.....
- b) The differences between Chla and Chlb are.....
- c) Compensation point is.....
- d) The primary stable compound in C4 plant is.....whereas in C3-plant is.....
- e) The substrate of photorespiration is.....
- f) The electron acceptors in Hill reaction are.....
- g) J. Priestly stated that.....
- h) The conditions for cyclic photophosphorylation are.....

1. Give accounts on:

(30 Marks/10 marks each)

- a) The mitochondrial reaction of photorespiration.
- b) P700 and P680.
- c) The differences between photorespiration and normal respiration

2. write on the followings:

(30 Marks/10 marks each)

- a) Regeneration phase in Calvin cycle.
- b) Crassulacean acid metabolism.
- c) The differences between chloroplast and chromatophore.

GOOD LUCK

