



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF ZOOLOGY

EXAMINATION FOR SENIORS (FOURTH YEAR) STUDENTS OF SPECIAL ZOOLOGY

COURSE TITLE:	EPIDEMIOLOGY AND CLINICAL PARASITOLOGY	COURSE CODE: ZO 4105
DATE:	JANUR, 2017	TIME ALLOWED: 2 HOURS
TERM:	FIRST	TOTAL ASSESSMENT MARKS:100

Please Note That the Exam Is In Two Pages

ANSWER THE FOLLOWING QUESTIONS

FIRST QUESTION: EPIDEMIOLOGY..... (50 MARKS)

I. Choose the correct answer..... (10 Marks, 2 Marks each)

1- When a new treatment is developed that prevents death but does not produce recovery from a disease, the following will occur.....

- a) The prevalence of the disease will decrease
- b) The prevalence of the disease will increase
- c) The incidence of the disease will decrease
- d) The incidence and prevalence of the disease will both decrease

2- During 2008, there were 1,000 deaths from all causes. No of clinical cases with Hepatitis C disease were 300. During 2009, there were 60 deaths from Hepatitis C disease.

- The proportionate mortality rate of Hepatitis C is.....
 - a) 100 /1000
 - b) 10 / 1000
 - c) 300 / 100,000
 - d) 60 /1000
- The case fatality rate of Hepatitis C is:
 - a) 0.06%
 - b) 20%
 - c) 0.2%
 - d) 0.6%

3- The term epidemic refers to.....

- a) A disease that has a low rate of occurrence but that is constantly present in a population
- b) A greater than normal occurrence of a disease for that population at that time
- c) Diseases of the respiratory system that occur seasonally

4- Infant mortality rate could be measured by.....

- a) $\frac{\text{Total number of maternal deaths} \times 10^{(n)}}{\text{Total number of births}}$
- b) $\frac{\text{Total deaths under one year of age during a given time interval} \times 10^{(n)}}{\text{Total live births during same time interval}}$
- c) $\frac{\text{Number of new cases among the population during the period} \times 10^{(n)}}{\text{Population at risk at the beginning of the period}}$

5- Rate of development of disease in the general population is measured by.....

- a) prevalence rate
- b) Secondary attack rate
- c) Incidence rate

II. Read the provided health problems and answer the questions.....(20 Marks, 10 Marks each)

1) The causes of lupus مرض الذئبة الحمراء الجلدي are poorly understood but may involve mercury. A mercury battery factory with total number of workers 1000, the factory contains two units ; battery unit with 700 workers and the generators unit, a process that does not involve mercury, with 300 workers. In January 2016, the number of workers have lupus in battery unit is 63. After two weeks, 9 workers in generator unit have suffered from the symptoms of Lupus.
Calculate the risks of having lupus due to exposure of mercury in this population, and make an interpretation of your answer.


2) Seven cases of hepatitis A occurred among 70 children attending a child party. Each infected child came from a different family. The total number of persons in the 7 affected families was 32. One week later, 5 family members of the 7 infected children also developed hepatitis A.
Calculate the attack rate in the child party and the secondary attack rate among family contacts of those cases.

III. Compare between the following , and give example(s) whenever possible..... (20 Marks, 5 Marks each)

- a) Common vehicle and indirect contact transmission.
- b) Natural and artificial passive immunity.
- c) Hyperendemic and holoendemic..
- d) Second attack frequency and secondary attack rate.

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	TANTA UNIVERSITY FACULTY OF SCIENCE CHEMISTRY DEPARTMENT		
	FINAL EXAM FOR SENIOR STUDENTS (CHEMISTRY AND ZOOLOGY SECTIONS)		
	COURSE TITLE:	WATER TREATMENT (CH4127)	TIME ALLOWED: 2 HOURS
DATE: JANUARY 22, 2017	TERM: FIRST	TOTAL ASSESSMENT MARKS: 50	

Question 1: Discuss briefly: **(24 Marks)**

- a) Difference between TDS and TSS.
- b) Coagulation-filtration technique for the removal of solid from waste water.
- c) Trickling filter and rotating biological reactors (composition and theory of action).
- d) Chelation and ion exchange processes for water softening.
- e) Comparison between BOD and COD.
- f) Removal of dissolved organics from wastewater.
- g) A schematic diagram for municipal water treatment plant.
- h) Two methods to reduce levels of pathogens in sewage sludge.

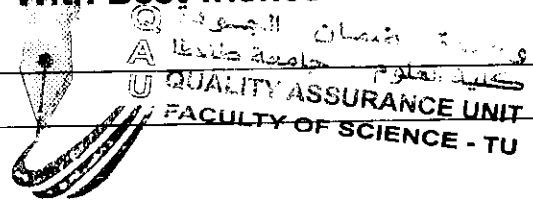
Question 2: Give the reason(s) for the following statements: **(16 Marks)**

- a) pH influences the degree of ionization, volatility, and toxicity of certain dissolved substances in surface water (show by two examples).
- b) Outside a chemical laboratory, truly pure water generally is not desirable.
- c) The addition of lime during municipal water treatment.
- d) The soil CO₂ is usually of higher concentration than the atmospheric CO₂.
- e) Some water disinfectants cannot be shipped but are generated on-site.

Question 3: Complete the following sentences: **(10 Marks)**

- a) Denitrification is and it can be done via
- b) Hardness is a property of while the alkalinity is a property of
- c) The two important sources of H₂S in the environment are and
- d) Fish need at least DO to grow and thrive.
- e) The primary sewage water treatment is done to remove
While the secondary treatment is performed to remove
- f) The removal of iron and manganese from wastewater depends on

With Best wishes



Examiners: Prof. Kamal Elbaraie	U	QUALITY ASSURANCE UNIT FACULTY OF SCIENCE - TU	Dr. Wael A. Amer
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TANTA UNIVERSITY
FACULTY OF SCIENCE
ZOOLOGY DEPARTMENT

First term Examination For The 4th Year Students Of special zoology

Course title:

Biodiversity and Conservation

Course code :ZO 4111

Date: 1/ 1 / 2017

First term exam.

Degree: 100 marks

Time allowed: 2 Hours

Answer the following questions:

I) Choose the correct answer :(18marks)


- 1) The root causes of changes in ecosystems is.....
a-indirect drivers b--direct drivers c- economic activity
- 2) Disruption by park visitors leads to
a- habitat fragmentation b-habitat degradation c- Habitat Loss
- 3) habitat along the edge of a fragment has a different(positions-climate-fragments) and favors different (species- nutrients- diseases) to the interior.
- 4) Chemical contaminants from pesticides and fertilisers from agriculture via.....pose threats to species and ecosystems.
a-fertilization b- environment c-Eutrophication
- 5) Bring species with no previous history of interaction may lead to.....
a-extinction b- colonization c- fragmentation).
- 6) Populations of biota may end up with small, possibly non-viable.....
which can lead to extinctions.
a- biodiversity b-genetic bases, c- ecosystem,
- 7) Wild plant gene pool which is available to augment the narrow genetic base of the established food crops provides.....
a- less productivity b- disease resistance c-human health
- 8)play an important role in the breakdown and absorption of many pollutants created by humans and their activities.
a-Ecosystems b-climate c-genetic diversity
- 9) The richness of the species in an ecosystem makes it.....
a-Unstable b-stable c-temporary d-unproductive

II)-Give the scientific term of each of the following sentences: (15 marks)

- 1) Any natural or human-induced factor that directly or indirectly causes a change in an ecosystem.
- 2) Provides resistance to crops and livestock by pests and diseases.

انظر باقي الامتحان في الصفحة التالية

سؤال

	Tanta University		
	Faculty of Science, Zoology Department		
	Final Exam. For Seniors (4 th year) students of Special Zoology		
Course title:	Ecological Pollution		Course code: ZO 4115
Date: 15 / 1 / 2017	Semester: First	Total assessment Marks: 100	Time allowed: 2 hours

Answer the following questions, please:

الامتحان مكون من صفتين

Question (I): (36 marks, 6 marks each)

- 1) Mention three causes, three effects of soil pollution and three different strategies for control of soil pollution.
- 2) List the AQI values and colours that correspond to the following 3 air quality conditions: Good, Moderate, unhealthy for Sensitive Groups,.
- 3) Write short notes on global warming and its effects.
- 4) Define the food pollution and mention its sources .
- 5) Discuss how sewage is related to biological oxygen demand (BOD), dissolved oxygen, and eutrophication.
- 6) Write on the major source of water pollutants that cause ecosystem disruption.

Question (II): Choose the correct answer. (22 marks, 2 marks each)

1 What is land pollution?

- A. This is the contamination of the environment with bad toxic, chemical and waste.
- B. Contamination of the ones home.
- C. Growing of trees and cutting them down.
- D. Cutting down of trees and using them to make furniture.

2- Biochemical oxygen demand (BOD) is an important measure of. _____

- A. the amount of dissolved oxygen consumed by aquatic microorganisms.
- B. a measure of the biological activity of water and wastewater
- C. oxygen content of water and wastewater
- D. the oxygen-using potential of water and wastewaters

3- - A lake that is eutrophic has

- A. many organisms.
- B. high nutrient levels.
- C. high biological productivity.
- D. low biological productivity.
- E. A and C.

4- Which two pollutants have to be present in order to form ozone?

- A. oxygen and hydrogen
- B. Oxides of nitrogen and hydrocarbons
- C. carbon dioxide and oxygen
- D. all of the above

5- What does biodegrade mean with regard to pollution?

- A. The decomposition of a natural substance
- B. Digestion of foods by the body
- C. Break down naturally with exposure to sun, air or water
- D. Throwing something into the ocean

6- You are a farmer. Which of the following would you most like to have to put on your Fields?

- A. water that remains after treatment is finished.
- B. dried biosolids
- C. untreated wastewater
- D. raw sludge



I- Answer the following points : (50 marks)

A- Only identify, then mention the occurrence and functions of four only: (10 marks)

- | | |
|--------------------|-------------------|
| 1- Glycolipids | 2- Lipofuscins |
| 3- Triglycerides | 4- Ascorbic acids |
| 5- Hyaluronic acid | 6- Melanin |

B- Briefly explain two (2) from the following methods of histochemistry: (10 marks)

- 1- Sudan Black B
- 2- Periodic Acid Schiff's (PAS) reaction
- 3- Modified Perl's method
- 4- Alcian blue- PAS method

C- Complete the following: (20 marks)

1. is a good method for differentiate between acid and neutral mucopolysaccharides, this method is based onand gives color respectively .
2.is a specific method for glycogen demonstration which gives color, this technique is based on
3. Exogenous pigments include all of them are characterized by
4. Lipofuscin pigments mostly occur in they are often associated with and seen more frequently in
5. Globin part of heamoglobin molecules helps in
6. Phospholipids which are insoluble in acetone include.....
7. Rapid loss of glycogen in liver and muscle is caused by
8. Sphingolipids comprise..... that are similar inand are different in
9. Stored form of carbohydrates in the animal tissues iswhich stored in cells, while a structural form of this material is represented by which exists inwhile are compounds use in different biochemical and physiological activity.

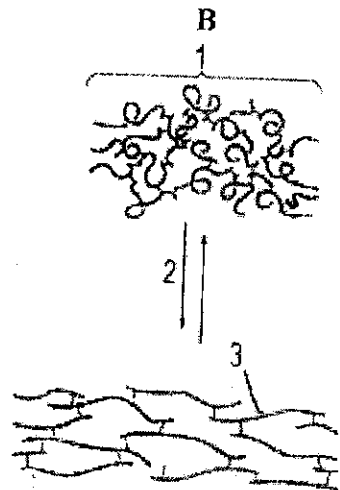
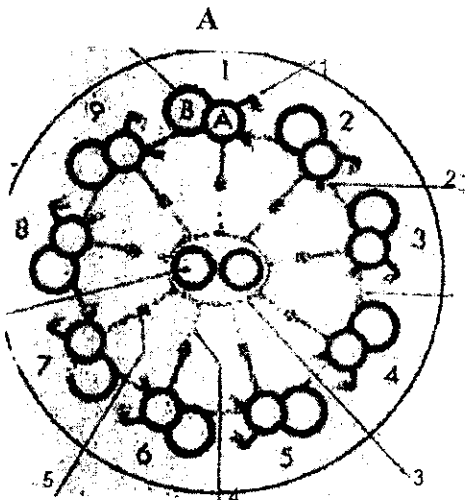
II. Answer the following questions:

(25 Marks)

A) Choose the correct answer(s): (12 Marks)

1. The site of acid phosphatases can be seen in lysosomes. True or False
2. Microtubules are hollow tubes of globular α and β subunits of tubulin. True or False
3. Orcein is an excellent stain for elastic fibers. True or False
4. The principal change during cornification is the oxidation of SH to SS gps in lower strata. True or False
5. In electron micrograph, a cross section of the centriol shows nine triplets of microtubules and two central singles. True or False
6. Actin can be demonstrated by azan. True or False
7. Vimentin is a type of
 - a. intermediate filaments
 - b. microtubules
 - c. microfilaments
8. Collagen fibers would differentiate from other fibers by
 - a- Azan
 - b- Silver stain
 - c- Orcein stain
9. Total proteins can be demonstrated using:
 - a- Bromophenol blue
 - b- Masson Trichrome
 - c- Silver stain
 - e- H &E
10. Nuclear lamina can be demonstrated by:
 - a. azan
 - b. orcein stain
 - c. immunostain
11. Which of the following is basic amino acid?
 - a. Tryptophan
 - b. Isoluecine
 - c. Lysine
 - d. Serine
 - e. Proline
12. Most important motor proteins associated to microtubules are
 - a- spectrin
 - b- fibrin
 - c- dynein
 - d- tropomyosin

B) Identify A, B and write each numbered labels) (13 Marks)




GOOD LUCK

EXAMINER:

Prof. Nabila I. El Desouki

سواءا

	Tanta University		
	Faculty of Science, Zoology Department		
Final Exam. For Seniors (4 th year) students of Special Zoology			
Course title:	Ecological Pollution		Course code: ZO 4115
Date: 15/1/2017	Semester: First	Total assessment Marks: 100	Time allowed: 2 hours

Answer the following questions, please:

الامتحان مكون من صفتين

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- 3- - A lake that is eutrophic has
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EXAMINATION FOR SENIORS (FOURTH YEAR) STUDENTS OF CHEMISTRY AND ENTOMOLOGY

COURSE TITLE:	Insecticide Toxicology	COURSE CODE :	EN 4143	
DATE:	15 -1- 2017	TERM:	FIRST	
TOTAL ASSESSMENT MARKS:		100	TIME ALLOWED:	2HRS

ملاحظة:- الامتحان في ثلاث صفحات.

▪ **Answer the following questions: Section A(Total 30 marks):**

1. **Choose from between the brackets the correct answer (Total 6 Marks, 2 Mark each):**

- Insect growth regulators are (high---- low) risk insecticides to non-target organisms.
- (Tetronic and tetramic acid derivative -----diacylhydrazines) are the only group of ecdysone receptor agonist insecticides, which induce premature molting in insects by mimicking the action of the (juvenile hormone ---- molting hormone ecdysone).
- (Abamectin -----spinosad-----Amitraz) is the only octopamine receptor agonist in current use.

2. **Fill in the blanks with the appropriate words (Total 16 Marks, 2 Marks each)**

- The four categories of insecticide modes of action are.....
- The mimics of the juvenile hormones and ecdysone receptor agonists act on involved in
- Acetylcholinesterase inhibitors bind to and inhibit the enzyme that normally responsible for.....
- Phosphine gas and cyanide are considered to inhibit.....
- The location on or within a particular protein where the toxicant binds and exerts its toxic action is known as the, and the interactions of the toxicant with that site define as the toxicant.....
- Avermectins and milbemycins activate, which are widespread on insect muscle and nerve cells.
- Rotenone inhibit, leading to
- Phosphines are restricted use pesticides due to

3. **Indicate whether the following statements are true (T) or false (F) (Total 5 Marks, 1 Mark each):**

- Non-specific multi-site inhibitors interact with one or more specific target sites.
Respiratory poisons affect energy metabolism.