المستوى الاول

علوم البيولوجى

COURSE TITLE:		**General Zoology(2)**		COURSE CODE: ZO1202	
DATE:	JUNE 2017	TERM: SECOND	TOTAL ASSESSMENT MARKS:150 MARKS	TIME ALLOWED: 2 HOURS	

Please Note That The Exam Is In Four Pages

Answer the Following Questions:

Part I: (40 Marks)

1- Write the name of scientists concerned with biodiversity in the following:............... (8 marks)
   a) The term biological diversity was first used by................... .
   b) .... introduced the term biodiversity to the scientific community.
   c) By the early 1980 .... and other leading conservation scientists advocated the use of biological diversity.
   d) Hot spots were first named in 1988 by ....

2- a) Write on latitudinal gradients in species diversity . ... (2 marks)

   b) **The threats facing biodiversity are:**...(5 marks)

      1- ....

      2- ....

      3- ....

      4- ....

      5- ....

3- (a) Illustrate by only drawing the following:...(4 marks)

      1- **Sycon water canal system.**

      2- **Amphiblastula larva.**

      3- **Body wall of sponge.**

   (b) **Compare in a form of table between sponge classes** .... (6 marks)

4- Write on the following: ....(15 marks)

   (a) Dimorphism in phylum Cnidaria.

   (b) Cnidocystes.

   (c) Economic importance of Cnidarians.

Part II: (40 Marks)

I. Illustrate a diagram explaining the life cycle pattern of digenetic trematodes ....(6.5 marks)

II. What is meant by the following terms, give examples whenever possible: ....(6 marks)

   Microtriches - Haptor - Test

III. Complete the table indicating the larval stage (s) of the corresponding category: ....(7.5 Marks)

Category	larval stage
Nematoda	
Subclass: Digenea	
Class: Monogenea	
Subclass: Cestodaria	
Subclass: Aspidogastrea	

Part IV: (30 marks)

A. <u>Choose the correct answer:</u>...(5 marks)

1- All these animals are filter feeders except.

    * Some sharks   * petromyzon   * ascidia   * amphioxus

2- All these animals have larval stage except.

    *Ascidia   * Amphioxus   *Petromyzon   * Frog

3- Feathers are the exoskeleton of ....

    * Penguin   * Bat   * Whale   * Turtle

4- .... is a fresh water animal.

    * Shark   * Raya   * Ascidia   * Tiliapia

5- The double life animals are ....

    * Protochordates   * Mammals   *Amphibians   * Aves

B - <u>Odd one word out and mention why</u>?........................(10 Marks)

* Cycloid scales - Placoid scales   - hair   - cartilage.

* Salamander   - Lizard   - Snake   - Tortoise .

* Frog   - Petromyzon   - crocodile   - Pigeon.

* Sicilian   - newt   - toad   - rat.

* Horse   -Ostrich   - Rabbit   - Toad

Good luck

EXAMINERS	PROF. MOHAMED HASSAN MONA	PROF. IBRAHIM BAKR HELAL
	PROF. DALIA FOUAD AFIFY	DR. AALAA IBRAHIM ATLAM

TANTA UNIVERSITY
FACULTY OF SCIENCE

EXAMINATION FOR LEVEL 1 STUDENTS (BIOLOGY SECTION)

COURSE TITLE:	**Quality Culture**	COURSE CODE: UN 1210
DATE:	JUNE 6, 2017	TERM:SECOND	TOTAL ASSESSMENT MARKS:50	TIME ALLOWED: 2 HOURS

أجب عن الاسئلة الاتية : (٥٠ درجة)

السؤال الأول (١٠ درجات)
فسر المصطلحات الأتية:
الإعتماد- رسالة الكلية- التقرير السنوى- المعايير الأكاديمية القومية المرجعية (NARS)-
البرنامج التعليمى

السؤال الثانى (٢٠ درجة)
اكتب باختصار عن معايير اعتماد مؤسسات التعليم العالى (القدرة المؤسسية والفاعلية التعليمية).

السؤال الثالث (١٠ درجات)
للطالب دور فعال فى منظومة ضمان الجودة ... وضح أهمية هذا الدور.

السؤال الرابع (١٠ درجات)
اشرح الأنواع المختلفة لمخرجات التعلم المستهدفة (ILOs).

مع أطيب الأمنيات بالتوفيق

الممتحنون	أ.د. محمود أبواليزيد	أ.د. عبير علم الدين

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Notice! The exam consists of Two pages

Answer the following questions:

Section: A (50 mark total)

1. **Choose the correct answer from between the brackets (Total 10Marks, 2 Marks each)**
   a- In the state of propagative biological transmission, the pathogen change in (number- shape- both of them).
   b- Dragon fly is predaceous during (naiad- adult- both stages).
   c- Parental care is an example for relation between (insect with insect – insect with man- insect with plant).
   d- Smell receptors found on (antenna-leg- abdomen).
   e- (Female- male- larva) of horse fly suck the blood of horses.

2- **Indicate whether the following statements are true (T) or false (F) (Total 10 Marks, 2 Marks each):**
   a- Mutualism is a mutual benefit between two organisms and they can live apart (   ).
   b- Insects can detect four types of sensory stimuli (   ).
   c- House fly transmit diseases meachnically (   ).
   d- Permanent parasite spends all the stages of its life on the same host (   ).
   e- Heat receptors found on compound eye (   ).

3- **Define the following terms (Total 10Marks, 2 Marks each)**
   a- Entomophagus plants
   b- Parasitoid
   c- Inoculative release
   d- Social insects
   e- Insect behavior

4- **Write short notes on each of the following (Total 20Marks, 5 Marks each)**
   a- Dioneae sp.
   b- Types of stimuli
   c- Types of parasites
   d- Methods of defense in insects

Section: B (50 mark total)

1. **Put true ($\sqrt{}$) for the correct statements or false ($\times$) for the incorrect statements with correction : (Total marks 10, 2 marks each).**
   A. LC_{50} normally expressed as mg Kg^{-1} and represents an indicator of the toxicity. (   )
   B. Mole cricket is a bi-functional insect to human Economy. (   )
   C. Fruit fly is able to breed in nearly all kinds of fruits and in many vegetables. (   )
   D. Insect's growth flourishes in warm weather than in cold weather. (   )
   E. Associations of individuals of the same species is known as inter specific relations and it may be beneficial. (   )

2. **Give the appropriate scientific term: (Total marks 10, 2 marks each)**
   A. Is the process of management of honey bees in order to collect their honey and other products?
   B. A period of suspended activity of individual occurring during seasonal high temperature or in a dry weather?
   C. Is the most important physical factor which determines the duration of the various stages in the insect life cycle and the number of generations during any period of time?
   D. These substances interfere with the synthesis of chitin, the material that makes up the insect exoskeleton?
   E. A resinous mixture that honey bees produce by mixing saliva with beeswax with exudates from tree buds and have many biological and medical applications.

3. **Complete the following sentences: (Total marks 10, 2 marks each)**
   A. ....is the use of bee venom in treatment of rheumatoid and other diseases.
   B. Cantharidin is secreted by.......... while silk is a natural secretion of..............
   C. ....are agents of chemical or biological origin that control insects.
   D. Death of insects at fatal high temperature is due to ....while death at fatal low temperature is due to ....
   E. ....is highly toxic to non-target organisms and persist in the environment.

4. **Give Short notes about: (Total marks 20, 4 marks each)**
   A. Chemical structure and biological activities of probolis.
   B. Microbial insecticides.
   C. Commercial production of silk (in fully labeled diagram only).
   D. Classification of insecticides based on their mode of entry and mode of attack.
   E. Effects of non-biotic factors on insect population (light & moisture).

Good Luck

Examiners	Dr. Hanaa El-Brens	Dr. Yahya elnagar

عبد السلام @

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Tanta UNIVERSITY, Faculty of Science, Department of Botany				
Final Examination for (First Year) Students of Biology				
	COURSE TITLE: General Botany (2)		COURSE CODE:BO1202	
DATE: 11 JUNE, 2017	TERM: SECOND SEMESTER	TOTAL ASSESSMENT MARKS: 150	TIME ALLOWED: 2HOURS	

I – Plant Physiology (75 marks)

A) Choose the correct answer: (20 marks)

1. Hydrogen bonds between water molecules gives rise to (cohesion – adhesion – both of them)
2. In diffusion, substances move down (a concentration gradient – a pressure gradient – both of them)
3. Suspensions are (heterogeneous unstable – homogeneous stable – homogeneous unstable) mixtures.
4. Milk is an example of (colloidal – true – emulsion) solution.
5. In osmosis, substances move down (a concentration gradient – a pressure gradient – both of them)
6. Buffer solution consists of (weak acid and its salt – strong acid and weak base – weak acid and weak base)
7. Excited chlorophyll can re-emit a photon and return to its ground state a process known as (phosphorylation – fluorescence – energy transfere)
8. Oxygen evolved from photosynthesis comes from (water – carbon dioxide – other substance)
9. Re-oxidation of a molecule of NADH leads to the formation of (2ATP – 3ATP – 1ATP)
10. Glycolysis takes place in (cytoplasm – mitochondria – chloroplast)

B) Put √ or x :   (20 marks)

1. Particles of true solution scatter light   (   )
2. Colloidal solution is a heterogeneous stable mixture   (   )
3. Pressure bulk is the main mechanism responsible for long distance transport in the xylem (   )
4. At the endodermis of the root, water movement through the apoplast is not available   (   )
5. When the guard cells of the stomata lose their water the stomata closed   (   )
6. Co-factor is the protein part of the enzyme   (   )
7. Non-competitive inhibition can be overcome by increasing the substrate concentration   (   )
8. In photosynthesis, the electrons comes from water are used to re-fuel PSII   (   )
9. CO_2 acceptor in Calvin cycle is 3-phosphoglycerate   (   )
10. Citric acid cycle takes place in mitochondrial matrix   (   )

C) With drawing **only** show the following:

1. Steps of glycolysis   (15 marks)

2. Curve which represents the effect of temperature on the rate of enzyme catalyzed reactions (5 marks)

3. Structure of chloroplast and mitochondria (15 marks).   **(Answer the next page)**

II – Plant Systematic (75 Marks)

A) With <u>labeled drawings</u> **only,** show each of the following:
1. *Puccinia* life cycle on Barberry only.   (12.5 Marks)
2. Scalariform conjugation in *Spirogyra*.   (10 Marks)
3. Conjugation in bacteria.   (10 Marks)
4. Lytic cycle of *lambda* virus.   (12.5 Marks)

B) Choose the correct answer: (30 marks)

1. Genus name always capitalized and species name always lowercase. (True – False)
2. Mitosis and meiosis divisions occur in prokaryotes. (True – False)
3. Viruses can only be seen by electron microscope. (True – False)
4. Viruses can be purified chemically by ultracentrifugation and collodion membranes. (True – False)
5. Fungi are chlorophyllous, absorptive and heterotrophic organisms. (True – False)
6. Xylem and phloem tissues are present in vascular plants, while those are absent in non vascular plants. (True – False)
7. Anisogametes are those, which differ in shape and size. (True – False)
8. The Fungal hyphae may be coenocytic or pseudohyphae. (True – False)
9. Bacteria, which have many flagella over the whole surface of the cell, are known as (amphitrichous, peritrichous, cephalotrichous, lophotrichous)
10. Bacterial Cultures' method is used for the cultivation of (bacteriophages, phytophages, zoophages, molds)
11. Myxomycota forms a multinucleated mass of naked protoplasm called (hyphae, mycelia, plasmodium, haustoria)
12. Fungi are described as .... when the two sex organs are carried on different thalli. (homothallic, homogenous, heterothallic, heterogenous)
13. .... are those algae, which swim freely or floats on water. (Phaeophyta, Chlorophyta, Rhodophyta, Phytoplanktons)
14. Asexual reproduction of *Vaucheria* sp. takes place by the formation of a quadriflagellate zygospore. (True – False)
15. Phaeophyta are brown algae due to the presence of (phycoerythrin, diatomin, fucoxanthin, phycocyanin) pigment.
16. Phycoerythrin pigments absorb (red light, UV, blue light, white light)
17. *Porphyridium* sp. has a .... choloroplast (spiral-shaped, star-shaped, cup-shaped, disc-shaped)
18. Asexual reproductive structures produced by lichens are (isidia, basidia, uredia, telia)
19. The mycobionts provide the photobionts the nutrients, which result from photosynthesis. (True – False)
20. The fungal motile asexual spores are called (zoospores, oospores, aplanospors, zygospores).

Prof. Dr. Shimaa Abdelhamid	Dr. Mohamed El-Shetehy

TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF PHYSICS

EXAMINATION FOR FRESHMEN (FIRST YEAR) STUDENTS OF **BIOLOGY**

COURSE TITLE: **GENERAL PHYSICS 2**   COURSE CODE:PH 1224

DATE:

15 / 6/ 2017   TERM: SECOND   TOTAL ASSESSMENT MARKS: 100   TIME ALLOWED: 2 HOURS

Answer the following questions:

First Question: (25Marks)

A-Define the following with SI units if find: (15Marks)
Electric force-Electric charge density-Resistivity-Capacitor-Gauss`s Law.

B-Two equal point charges each equal 7µc placed at axis(=+4m).If placed
Third charge equal(5µc) at distance 3 m from origen at point P. (10Marks)
Calculate the electric potential at point P and find the potential energy.

Second Question:(25Marks)

A-Compare between the equivalent capacitances for two capacitors of
Parallel and series combination.   (15Marks)

B-Compute the following for Carbon nucleus(Z= 6)   (10Marks)
1-Electric field. 2-Electric flux. 3-Electric potential.
Where the radius of nucleus 4×10^{-15}m. ,e=1.6×10^{-19}c,ε_0=8.85×10^{-12}C^2/N.m^2

Third Question:(25Marks)

A-Define the law of refraction.   (10Marks)

B-Prove that the angle between the initial and final direction of the ray
Is twice the angle between the two flat mirrors.   (10Marks)

C-A certain spherical mirror has a focal length(10 cm).Locate, draw, describe
the image for object distances(5cm).   (5Marks)

Fourth Question:(25Marks)

A-Draw and comment the image formed by fish under water for (10Marks)
 Flat refracting surface.
B-Explain the total internal reflection.   (10Marks)
C-Draw and describe the image formed by flat mirror
 for extended object.   (5Marks)

---Best Wishes---

EXAMINATION FOR FRESHMEN (FIRST YEAR) STUDENTS OF **BIOLOGY**

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DATE:

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---Best Wishes---

(درجة / مفهوم العلامة)

القسم الأول (٢٠ درجة)

أجب عن الأسئلة الآتية :

السؤال الأول : ....

السؤال الثاني : ....

السؤال الثالث : ....

القسم الثاني (٢٠ درجة)

أجب عما يأتي :

١- ....

٢- ....

٣- ....

٤- ....

٥- ....

٦- ....

المشرف / د ....