



COURSE TITLE:	Principles of Zoology		COURSE CODE: ZO1204
DATE: JUNE, 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED: 2 HOURS

First question

(Total mark 30)

Answer the following questions:

1. Write short note about latitudinal gradients .
2. Mention the 7 threats of biodiversity.
3. Define the biological diversity.
4. In diagram illustrate the kinds of ecosystems.
5. With full drawings only mention the types of sponge water flow system. (5 marks)

Second question

(Total mark 12)

Answer the following questions:

- 1) **Using a table**, compare between general characters of Arthropoda and Annelida. (7 marks)
- 2) Chose the correct answer and comment : (5 marks)
 1. Segmented worms have
 - a. A closed circulatory system.
 - b. An open circulatory system.
 - c. Asymmetry
 - d. Radial symmetry
 2. Which of these is NOT a characteristic of arthropods?
 - a. A endoskeleton
 - b. Pairs of appendages
 - c. Segmented body parts
 - d. Bilateral symmetry
 3. Which of these animals are polychaetes?
 - a. Nematodes
 - b. Earth worms
 - c. Sand worms
 - d. Leeches
 4. Which of these terms is NOT related to Porifera
 - a. Choenocytes
 - b. Trochophore larva
 - c. Calcareous spicules
 - d. Ostium
 5. Which statement is NOT true?
 - a. Arthropods have open circulatory system.
 - b. Protruded pharynx found only in Polychaeta.
 - c. Arthropods have dorsal nerve cord.
 - d. Demospongia have sponging fibers.

Third question

(Total mark 25)

- A. Give 4 differences between Coelomata, pseudocoelomata and acoelomata (10 marks)
- B. Define these Terms:
Species. – Metameric. – Monoecious. – Arthropod. - Mantle (15 marks)

Fourth question

(Total mark 14)

Choose the correct answer : (2 marks each) :

The following are characters of phylum chordate except one .select the exception .
a-Notochord c-Ventral nerve cord
b-Laryngeal-Post anal tail

2-The most primitive living vertebrates are
a-Amphioxus c-Petromyzon
b-Ascidea d-Lancelet

3-Group of chordates which it's notochord extends into the head
a-Urochordates c-Gnathostomates
b-Cephalochordates d-Agnathostomates

4-All the vertebrates are
a-Unisexual c-Both (a&b)
b-Bisexual d-None of them

5-Jawless vertebrates are called
a-Agnatha c-Cephalochordata
b-Urochordata d-Gnathostomata

6-Mammary glands are present in
a-Penguin c-Whale
b-Kangaroo d-Both(b&c)

7-Caecilian is a/an
a-Bird b-Reptilia
c-Lancelet d-Amphibian

Fifth question

(Total mark 19)

Complete these sentences:

- 1-Members of class Reptilia ,A ves and Mammals are called
- 2-.....is an example of Urochordates .
- 3-Whales and bats belong to class
- 4-Placoid scales cover the body ofbut horny scales cover
- 5-In There are no jaws .
- 6-..... , and are subphylum's of phylum chordata
- 7- Amphioxus is feeding animal but petromyzon is
- 8- Class and class Are cold blooded animals .
- 9-presence of , andare the characters of chordates .
- 10-Adultlack a notochord and there is only a single ganglion.
- 11- is the first fully terrestrial animal group .

Best wishes.....

Examiners:

1. Dr. Dalia F. Afify.
2. Dr. Ahmad El-Bossery.



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF ZOOLOGY

EXAMINATION FOR FRESHMEN (FIRST YEAR) STUDENTS OF BIOLOGY

COURSE TITLE:	General Zoology(2)	COURSE CODE: ZO1202
DATE:	JUNE 2014	TIME ALLOWED: 2 HOURS

Please Note That The Exam Is In Two Pages

Answer the Following Questions

Part I: (40 Marks)

First question (12 Marks, 4 Marks each)

- 1) Define biodiversity then mention its level?
- 2) Write briefly on host spots
- 3) Mention only five reasons of threats of biodiversity

Second question (12 Marks, 6 Marks each)

- 1) why Porifera is considered advanced than protozoa
- 2) What do you know on choanocyte cells?

Third question (16 Marks)

- 1) Compare in form of table between polyp and medusa
- 2) Write on the economic and medical importance of phylum Cnidaria
- 3) What do you know on dimorphism in phylum Cnidaria

Part II: (40 Marks)

A. Give a general description of the life cycle pattern of digenetic Trematodes(15 Marks)

B. Only in one sentence give answer of the following..... (15 Marks, 3 Marks each)

- 1) How are nematodes different from trematodes?
- 2) How are the cestodes similar to the trematodes?
- 3) How is *Taenia saginata* different from *Taenia solium*?
- 4) How is *Euglena* sp. different from *Trypanosoma* sp.?
- 5) How is *Opalina* sp. different from *Paramecium* sp.?

C. Chose the correct answer and rewrite it in your paper..... (10 marks, 1 mark each)

- 1) Which of the following best describes the PROTISTA Kingdom?

a) Multicellular eukaryotes	b) Multicellular prokaryotes
c) Unicellular prokaryotes	d) Acellular eukaryotes
- 2) Organisms have spore-forming stage in their life cycle and lack special locomotory organelles belong to phylum

a) Sarcocystophora	b) Labyrinthomorpha	c) Apicomplexa	d) Ciliophora
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- 3) The pellicle of Protozoa is a structure which is.....

a) Sensitive to light	b) used for locomotion	c) Used to store food	d) Used to digest food particles
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- 4) Water enters into an ameba's body by osmosis and excess water is removed by filling and emptying of the.....

a) Reticulopodia	b) Contractile vacuoles	c) Food vacuoles	d) Macronucleus
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- 5) The members of the Phylum Apicomplexa generally share two features.....

a) An apical complex and endoparasitism	b) Flagella and cyst formation
c) Endoparasitism and flagella	d) None of the above is correct
- 6) The cells that fill the spaces of platyhelminthes between muscles and organs and develop from mesoderm are called.....

a) Cuticle Layer	b) Rhabdite	c) Parenchyma	d) Tegument
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- 7) The eggs of Monogeneans hatch to release.....

a) An onchosphere	b) A codylocidium	c) A cyster cercius	d) An onchomiracidium
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- 8) You have unknown animals to study. You find them triploblastic with cuticle covering and male individuals are separate from females. These animals belong to the phylum.....

a) Nematoda	b) Sarcocystophora	c) Ciliophora	d) Platyhelminthes
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- 9) The sensory structures at the posterior end of nematodes used to classify them are called.....

a) Vulvae	b) Phasmids	c) Stichocytes	d) Bursae
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- 10) The excretory system of nematodes consists of one or two gland cells, known as.....

a) Rhabdites	b) Flame cells	c) Renette	d) Amphids
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Part III: (40 Marks)

A. Put **True** or **False** and **correct the false** question..... (15 Marks, 3 Marks each)

- 1) Errantia are free living Annelids
- 2) Echinodermata are provided with mesodermal endoskeleton
- 3) Bivalvia has no radula
- 4) Octopus has no shell
- 5) Sea cucumber has radial symmetry.

B. Define the followings..... (12 Marks, 4 Marks each)

- 1) Protostomia
- 2) Nocturnal
- 3) Sedentary animal

C. What is the affinity of Echinoderms to Cnidaria? (3 Marks)

D. Give **ONLY TWO** reasons for the following..... (5 Marks)

Echinodermata is more advanced than Mollusca

E. Mention three economic importances of Annelids (5 Marks)

Part IV: (30 marks)

A. With fully labeled diagram show the structure of the amniotic egg..... (10 marks)

B. Choose the correct answer..... (10 marks)

- 1) The animals of order Urodela in class amphibia have.....
 - a) No tail
 - b) Legs of different size
 - c) 2 pairs of legs
 - d) All of these
- 2) Amphioxus is.....
 - a) A vertebrate
 - b) A hemichordate
 - c) A cephalochordate
 - d) A urochordate
- 3) Which of the following is a member of group Agnathostomata.....
 - a) *Lancet*
 - b) *Petromyzon*
 - c) *Tilapia* sp
 - d) Hedgehog
- 4) The number of paired fins in Dogfish is.....
 - a) Three
 - b) Two
 - c) One
 - d) Zero
- 5) In which class the buccal cavity is divided into an upper air passage and lower food passage?
 - a) Cyclostomata
 - b) Amphibia
 - c) Mammals
 - d) Osteichthyes
- 6) All of the following are characteristics of class birds except one. Select the exception.
 - a) Have air sacs
 - b) Have urinary bladder
 - c) Have syrinx
 - d) Have fused vertebrae
- 7) All of the following are characteristics of mammalian Marsupialians except one. Select the exception.
 - a) Have hair
 - b) Have mammary glands
 - c) Have maternal pouch
 - d) Lay eggs
- 8) All of these animals are amniotes EXCEPT.....
 - a) Bat
 - b) Turtle
 - c) Rat
 - d) Bufo
- 9) All of these animals are tetrapods EXCEPT.....
 - a) Mouse
 - b) Salamander
 - c) Tilapia
 - d) Platypus
- 10) All of these animals are vertebrates EXCEPT.....
 - a) Ant eater
 - b) Ascidea
 - c) Lizard
 - d) Cat

3. Put (✓) or (X) (10 marks)

- 1) The animals in class Urochordata characterized by the presence of the notochord in the head region only
- 2) The animals of Class Reptilia consider the first vertebrates that spend a portion of their time on land.
- 3) Placental animals are the only mammals that lay eggs.
- 4) The bat is a warm-blooded animal.
- 5) The toad Has ultra-light bones for reducing weight

Good luck

EXAMINERS	PROF. MOHAMED HASSAN MONA	PROF. IBRAHIM BAKR HELAL
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TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF ZOOLOGY				
EXAMINATION FOR JUNIORS (FIRST YEAR) STUDENTS OF BIOLOGY				
COURSE TITLE:		Introduction to Entomology(2)		COURSE CODE:1101
DATE 22/6	JUNE2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED: 2HOURS

(الامتحان في صفحتين)

1. Fill in the blanks with the appropriate words: (16 Marks,2each)

- a. There are many ways the insect benefit man such as,,
- b. Many insects that feed on plants inject into the plant that causes it to grow abnormally and produce
- c. is an example of the root chewers, and is an example of boring in the plant.
- d. Based on daily activity cycle, insects are divided into and
- e. Aestivation is
- f. Based on duration of attack parasites can be grouped into and
- g. The hive of bee keeping consists of,,
- h. Population can be defined as

2. Choose from between the brackets the correct word: (10 marks, 2each)

- a. Honey is a produced by honey bee. (natural secretion – product-body content).
- b. Cantharidin is secreted by (Honey bee – blister beetle – Aphids)
- c. Effective temperature in which insects development takes place are (10 o 35 °C - 50 to 60 °C- – 5 to14 °C).
- d. Biological control of insects is the use of instead of chemical insecticides. (Pheromones – natural enemies – hormones).
- e. Populations of different species live together and form a (population-community-ecosystem)

3. Indicate whether the following statements are true (T) or false (F) and correct the false one (12marks,2each)

- a. Omnivorous insects feed on both plants and animals ()
- b. Young grasshoppers improve the physical properties of the soil and promote its fertility. ()
- c. Saprophagous insects feed on animals. ()
- d. Biotic factors include: Temperature , Humidity and Rainfall . ()
- e. Parasite is one, which catches and devours smaller or more helpless creatures.
- f. The organism, which is attacked by the parasites, is called prey. ()

4. Answer the following questions (12marks, 4each)

- a. What are the qualities of a successful parasite in biological control program?
- b. Mention the classification of insecticides according on their toxicity.
- c. What are the adaptations of insects to conserve moisture?

5-Fill in the blanks below with the appropriate words (16marks, 2 each).

- a. The relationship of insects to plants either, or
- b. The sting of the ant worker is used to

- c. The relationships between members of insects of the same species are.....
 ,....., and
- d. Insect migration is..... because of
- e. Insect behavior is.....in response of.....
- f. Vision organs of insects are, and.....
- g. Examples of defensive and protective behavior in insects are.....,
, and.....
- h. Insect pheromones are.....

6. Indicate whether the following statements are true (T) or false (F) and correct the false one (18marks, 3each)

- a. The relationships between different insect species are symbiosis and predation. ()
- b. The honey bee colony contains more than one queen. ()
- c. Termites are typical examples of blood sucking insects. ()
- d. Heat receptors may be located on insect antennae, or tarsi. ()
- e. Wasps use their sting entirely for killing their prey before eating it. ()
- f. Insect Chemoreception includes taste and vision. ()

7. Answer the following questions (16marks, 4each)

- a. Describe the life story of the honey bee worker from an egg until it begins to gather nectar.
- b. Describe the symbiosis between ants and aphids.
- c. Mention the types of mechanical stimuli that could be detected by insects.
- d. Compare between mechanical and biological transmission by vectors of human diseases.

Good Luck!

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