



المستوى الاول
علوم طبيعه



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF ZOOLOGY

FINAL EXAM FOR 1ST YEAR BIOLOGY STUDENTS

COURSE TITLE:	INTRODUCTION TO ENTOMOLOGY 2	COURSE CODE : EN 1204		
DATE:	JUNE 2017	TERM: SECOND	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED: 2 HOURS

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 (✓) for the correct statements or false (×) 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 towhile 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

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