### C:\Users\Dr.Abdelwahab\Desktop\Logo Entomology.jpgBenha University Entomology Department

### Final Examination, 1st Semester, 2012

### General Entomology (111E) Time allowed 1 hour

### Date 8/1/2012 80 Marks

### ضع علامة صح أو خطأ X أمام كل عبارة من العبارات التالية ، ولاحظ أن الأسئلة في ورقتين ولكل سؤال درجتين ، ولن يلتفت لأي إجابة خارج الجدول

|  |  |
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|  | THE STATMENT |
|  | All Insects have two pairs of wings.  |
|  | All insects must have: three body parts, six jointed legs, two antennae and an exoskeleton. |
|  | The periodic shedding of the exoskeleton is called cuticle. |
|  | Insects were the first animals to use flight as an escape from predators. |
|  | In Ametabolous insects Immatures are called **larvae**.  |
|  | Insect cuticle is covered by a layer of wax that prevents desiccation.  |
|  | Some insects spend their entire lives in underground caves.  |
|  | Some insects inhabit deserts where water is scarce and daytime temperatures exceed 80 oC.  |
|  | Insects represent more than half (about 53%) of the 1.5 million species of living organisms known to science.  |
|  | Parasitology is the scientific study of insects.  |
|  | Scientists estimate that social Insects (ants and termites) probably make up 20% of the total animal biomass of this planet.  |
|  | Insects are similar in size, shape, and behavior. |
|  | Sense organs in insects include antennae, compound eyes, and ocelli.  |
|  | Insects are the only invertebrates that can fly.  |
|  | Pollination by insects may increase the production by 13 to 17 folds.  |
|  | Cochineal, a product of a scale insect, was widely used as a varnish (protective coating) for floors, furniture, photographs, playing cards.  |
|  | In Africa, army ants can cause the evacuation of an entire village.  |
|  | Over the course of human history, more soldiers have died from butterflies than from bullets and bombs.   |
|  | Many insects are valued simply for their beauty.   |
|  | Shellac is a pigment extracted from a scale insect was highly valued for the intensity and permanence of its color. |

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|  | THE STATMENT |
|  | Many people regard insect sounds as a form of music. |
|  | Our language still reflects many traditional associations: as (mad as a mosquito).   |
|  | **Apitherapy** is the use of certain fly larvae in cleaning of deep wounds  |
|  | The Nerve cord of insects is located in the dorsal side of the body. |
|  | In insect populations, females often produce large numbers of eggs (high fertility). |
|  | Most females, can store sperms for months or years within the ovaries.  |
|  | There are many insect species that reproduce asexually. |
|  | In some insects, immatures and adults may use different environmental resources and may occupy different habitats.. |
|  | Theeconomic impact of insects is measured by the market value of products they destroy and the cost of damage they inflict.  |
|  | Flies and mosquitoes prevent the build-up of manure from large animals.   |
|  | Scientists destroyed the theory of spontaneous generation, when they found that maggots appear on dead meat are laid by house flies. |
|  | The fruit fly (Drosophila melanogaster) increased our knowledge of genetics. |
|  | Toxicology relies heavily on insects to test the toxicity of products. |
|  | Entomologists trained parasitic wasps in screening for explosives, drugs, chemical weapons, using a device known as the "Wasp Hound.  |
|  | Insects could guide the next wave of advances in biomimetic robotics. |
|  | **Forensic entomology** is the use of Honey bee's products for medicinal purposes.  |
|  | Pharmaceutical companies can find enough new drugs in the class Insecta to keep them busy for many hundreds of years.  |
|  | Specialists in **Maggot therapy** can often deduce how, when, or where a crime was committed.  |
|  | Endocuticle may be as elastic as rubber or as hard as some metals.  |
|  | Discovery of a new species of invertebrate is rare.   |

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|  | There are many insect species that reproduce asexually. |
|  | In some insects, immatures and adults may use different environmental resources and may occupy different habitats.. |
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|  | Cochineal, a product of a scale insect, was widely used as a varnish (protective coating) for floors, furniture, photographs, playing cards.  |
|  | In Africa, army ants can cause the evacuation of an entire village.  |
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|  | Shellac is a pigment extracted from a scale insect was highly valued for the intensity and permanence of its color. |
|  | All Insects have two pairs of wings.  |
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|  | The periodic shedding of the exoskeleton is called cuticle. |
|  | Insects were the first animals to use flight as an escape from predators. |
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|  | Some insects inhabit deserts where water is scarce and daytime temperatures exceed 80 oC.  |
|  | Insects represent more than half (about 53%) of the 1.5 million species of living organisms known to science.  |
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