

# AG/BI 345 – General Entomology – Exam 1 – November 26, 2013

Name: \_\_\_\_\_

1. Use these names to build a taxonomic hierarchy for the oriental flower beetle: *Protaetia*, Arthropoda, Coleoptera, Animalia, *orientalis*, Scarabaeidae, Insecta (7 points)

Kingdom \_\_\_\_\_

Phylum \_\_\_\_\_

Class \_\_\_\_\_

Order \_\_\_\_\_

Family \_\_\_\_\_

Genus \_\_\_\_\_

Species epithet \_\_\_\_\_

2. Insects, spiders, millipedes and centipedes are all arthropods. Give two characteristics of insects which can be used to differentiate them from other arthropods. (2 points)

a. \_\_\_\_\_

b. \_\_\_\_\_

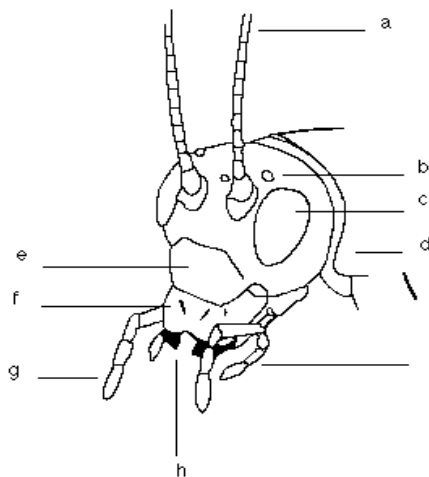
3. Which letters point to the following structures on an insect's head? (4 points)

Compound eye \_\_\_\_\_

Ocellus \_\_\_\_\_

Mandible \_\_\_\_\_

Antenna \_\_\_\_\_



4. Match the following terms with their definitions. (10 points)

- Chrysalis
- Instar
- Incomplete metamorphosis
- Molt
- Complete metamorphosis
- Larva
- Pupa
- Cocoon
- Naiad
- Ovipositor

	The immature form of an aquatic insect with incomplete metamorphosis
	A stage of insect larval development between molts
	A butterfly pupa which is not protected by a cocoon
	Insect life cycle with four major stages: egg, larva, pupa, adult
	An immature insect
	A silk covering which protects pupae of some insects
	An egg laying tube found on the abdomen of many female insects
	The life stage in which a larva transitions into an adult
	Insect life cycle with three major stages: egg, larva, adult
	Process of shedding exoskeleton to allow growth

5. Sometimes you may see white cockroaches. How do you explain this? (1 point)

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6. True or False: All adult insects have wings. (1 point)

7. True or False: Insects can fly only after they have become adults? (1 point)

8. True or False: Insects can fly only after becoming an adult. (1 point)

9. True or False: Male bees, wasps, and ants do not sting. (1 point)

10. More advanced orders of insects undergo complete metamorphosis. What advantage is gained from using this type of life style? (2 points)

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11. *Musca sorbens* is the scientific name for the dog dung fly. (2 points)

a) What genus does the dog dung fly belong to? \_\_\_\_\_

b) What is species does the dog dung fly belong to? \_\_\_\_\_

12. Which of the following demonstrates incorrect formatting of a scientific name? (4 points)

a) *Musca sorbens* (correct / incorrect)

b) *Musca sorbens* (correct / incorrect)

c) Musca sorbens (correct / incorrect)

d) *Musca Sorbens* (correct / incorrect)

13. True or False: Many species of insects collected in the Mariana Islands have been found nowhere else in the world. (1 point)

14. You are snorkeling in the ocean off Ypao Beach. Your che'lu calls for you to come over to look at a big bug hiding under a coral head. How do you respond? (1 point)

15. A lot of insects have evolved coloration which camouflages them in their normal habitat. Some insects enhance this protection by behaving in particular ways. Explain: (1 point)

16. True or False: Coleoptera is the insect order which contains the largest number of species. (1 point)

17. Classify each specimen in the box to order. Hint: You will need to use a microscope to correctly identify some of these specimens. (1 point will be awarded for each specimen correctly classified with a correctly spelled scientific name for the taxonomic order it belongs to.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_