

Name \_\_\_\_\_

Team \_\_\_\_\_

## ENTOMOLOGY RUNOFF

Choose the best answer for the following questions. For true or false questions “A” is true and “B” is false.

1. Location of the Cerci

- a. Genitalia
- b. Thorax
- c. Fore Wing
- d. Hind Wing
- e. Abdomen

2. Order of Metamorphosis

- a. Ametabolous, Hemimetabolous, Holometabolous
- b. Ametabolous, Holometabolous, Hemimetabolous
- c. Hemimetabolous, Ametabolous, Holometabolous
- d. Hemimetabolous, Holometabolous, Ametabolous
- e. Holometabolous, Hemimetabolous, Ametabolous

3. Location of the crop

- a. Anterior to midgut
- b. Posterior to midgut

### Identify the following

- a. Archaeognatha
- b. Grylloblatodea
- c. Orthoptera
- d. Protura

4.



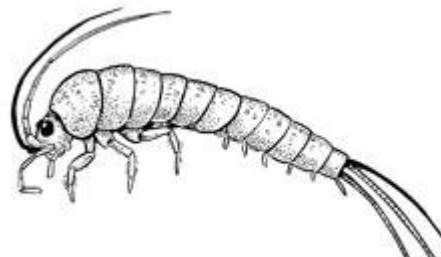
5.



6.



7.



8. When do pole cells differentiate?

- a. Early embryogenesis
- b. Middle of embryogenesis
- c. End of embryogenesis
- d. Depends on the insect
- e. Never

9. All of the following conditions must be met before an insect begins flight except

- a. Warm muscles b. Humidity c. Wind conditions d. All of the above

Which is the outer most germ layer?

- a. Mesoderm b. Endoderm c. Ectoderm d. Exoskeleton e. External

Which of the following is not a function of haemolymph?

- a. Transport and Storage
- b. Hydraulic Medium
- c. Lubricant
- d. Heat Transfer
- e. All are functions

Which of the following cannot be a color of the haemolymph?

- a. Colorless
- b. Green
- c. Yellow
- d. Pink
- e. Red

T/F: Sutures are lines on the surface of an insect which can only be examined using a microscope.

T/F: Sulcus demarcate internal projections of the exoskeleton

Which of the following is (are) a part of the excretory system?

- a. Mandibles b. Malpighian tubules c. Antennae d. Spiracles e. Nodes of Ranvier

How can Damselflies be curated?

- a. Pin through right side of thorax, spread wings
- b. Pin through left side of thorax
- c. Alcohol vial
- d. Pin through right side of mesothorax (spreading left wing optional)

About how many species of insect pests exist?

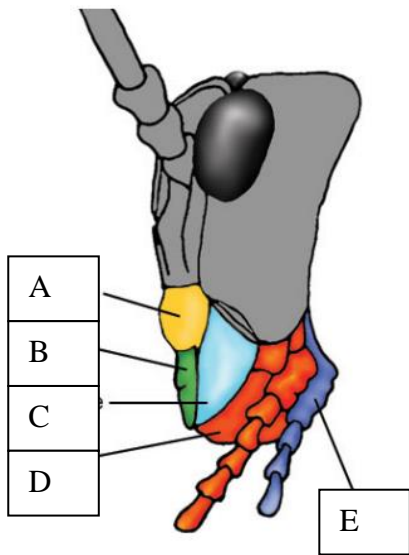
- a. 100 b. 1,000 c. 10,000 d. 50,000 e. 100,000

Entomology is the study of

- a. Life
- b. Everything
- c. Insects and their relationship to humans, the environment, and other organisms
- d. Humans and their relationship to insects
- e. Wildlife

19. What is attached to the thorax?

- A. Wings
- B. Legs
- C. Valves
- D. A and B
- E. A and C



Refer to the diagram for questions 20-22

20. What part of the body is this?

- A. Anterior
- B. Legs
- C. Mouth
- D. Ears
- E. Nose

21. Which is the Maxilla?

- A. B. C. D. E

22. Which is the Labium?

- A. B. C. D. E

23. What is an adult with wings externally on the nymph body called? \_\_\_\_\_

24. What are the steps of complete metamorphosis? \_\_\_\_\_-

25. Name some benefits of insects in a community.

26. Name some disadvantages of insects in a community.

27. \_\_\_\_\_ are used to collect most adult flying insects

28. What are some methods used to preserve insects?

29. Fleas can cause \_\_\_\_\_

30. Name 2 diseases caused by ticks.