Team Number: \_\_\_\_\_

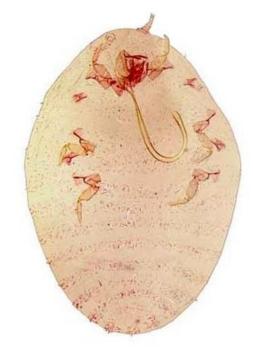
# Part I - Identification

1. a) Order: <u>Plecoptera</u>

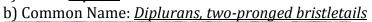


2. a) Order: <u>Hemiptera</u>b) Family: <u>Dactylopiidae</u>

c) Common Name: Scale insects



3. a) Order: <u>Diplura</u>





4. Order: <u>Collembola</u> Family: <u>Lycidae</u>

Family: <u>Lycidae</u> Common Name: <u>Net-winged beetles</u>



5. Order: <u>Diptera</u> Family: <u>Muscidae</u>

Common Name: *Horseflies* 



6. Order: <u>Ephemeroptera</u> Common Name: <u>Mayflies</u>



7. Order: <u>Mecoptera</u> Family: <u>Panorpidae</u>

Common Name: Common scorpionflies



8. Order: <u>Anoplura</u> Common Name: <u>Sucking lice</u>



## Part II -

Name the scientific name and type of antennae that goes with each insect. (*Note: antenna types may be repeated.*)

## Dragonflies:

- 9. Scientific name- *Odonata*
- 10. Antenna type- Setaceous

## *Ground beetles:*

- 11. Scientific name of the order- *Coleoptera*
- 12. Scientific name of the family- *Carabidae*
- 13. Antenna type- *Filiform*

## Termites:

- 14. Scientific name- *Isoptera*
- 15. Antenna type- *Moniliform*

## Click beetles:

- 16. Scientific name of the family- *Elateridae*
- 17. Antenna type- Serrate

## Butterflies:

- 18. Scientific name- *Lepidoptera*
- 19. Antenna type- *Capitate*

# Mosquitoes:

- 20. Scientific name of the order- *Diptera*
- 21. Scientific name of the family- *Culicidae*
- 22. Antenna type- *Plumose*

#### Ants:

- 23. Scientific name of the order- *Hymenoptera*
- 24. Scientific name of the family- *Formicidae*
- 25. Antenna type- *Geniculate*

## Cockroaches:

- 26. Scientific name- Blattodea
- 27. Antenna type- *Filiform*

## House Flies:

28. Scientific name of the family- Muscidae

# 29. Antenna type- Aristate

Define each word. (Answer is something along the lines of the definition given here)

- 30. Spermatophore: <u>encapsulated sperm within a water-tight lipoprotein shell</u> <u>secreted by the male's accessory glands; protects sperm from desiccation</u> during external fertilization
- 31. Alimentary canal: <u>tube-like enclosure running lengthwise through body from</u> <u>mouth to anus where food processing occurs—found in a complete digestive system</u>

Eusocial insect characteristics (cover all four characteristics):

- 32. Share a common nest site
- 33. Individuals of the same species cooperate in caring for the young
- 34. <u>Reproductive division of labor—sterile (or less fecund) individuals work for the benefit of a few reproductive individuals</u>
- 35. <u>Overlap of generations— offspring contribute to colony labor while their parents are still alive</u>
- 36. Cross resistance: <u>when a population develops a form of resistance that protects</u> <u>it from compounds in more than one chemical class—may produce a</u> <u>population that can no longer be controlled with chemical insecticides.</u>
- 37. Tagma: <u>a specialized grouping of multiple segments or metameres into a</u> <u>coherently functional morphological unit. Familiar examples are the head, the thorax, and the abdomen of insects</u>