



4-H Study Materials for Entomology Contests

January 2003

XI. Sample contest

The written sample contest below is for the senior division. Junior and intermediate participants will have simpler contests with a similar style. All contests will also have an insect identification portion which is half of the total score. Identifications require recognition of common name and order name.

STATE 4-H ROUNDUP ENTOMOLOGY CONTEST

Part I: Place the letter of the order by the common name of each arthropod.

COMMON NAME ORDERS

- | | |
|----------------------------|------------------|
| _____ 1. Booklouse | A. Homoptera |
| _____ 2. Thrips | B. Lepidoptera |
| _____ 3. Praying mantid | C. Thysanura |
| _____ 4. Backswimmer | D. Mantodea |
| _____ 5. Mole cricket | E. Ephemeroptera |
| _____ 6. Greenbug | F. Plecoptera |
| _____ 7. Stoneflies | G. Psocoptera |
| _____ 8. Antlion | H. Neuroptera |
| _____ 9. Mayfly | I. Hemiptera |
| _____ 10. Lightningbug | J. Thysanoptera |
| _____ 11. Silverfish | K. Dermaptera |
| _____ 12. Scorpionfly | L. Coleoptera |
| _____ 13. Peach tree borer | M. Collembola |
| _____ 14. Springtail | N. Orthoptera |
| _____ 15. Earwig | O. Mecoptera |

Part II: Place the letter of the type of metamorphosis next to the common name of the insect which corresponds with it.

COMMON NAME TYPE OF METAMORPHOSIS

- _____ 16. Lone star tick
- _____ 17. Snowy tree cricket
- _____ 18. Green darner
- _____ 19. Cecropia moth
- _____ 20. Red harvester ant
- _____ 21. Mosquito
- _____ 22. Caddisfly
- _____ 23. Whirlygig beetle
- _____ 24. Onion thrips
- _____ 25. San Jose scale
- _____ 26. Human body louse
- _____ 27. Viceroy
- _____ 28. American cockroach
- _____ 29. Stoneflies
- _____ 30. Silverfish

- A. Ametabolous (no or none)
- B. Paurometabolous (gradual)
- C. Hemimetabolous (incomplete)
- D. Holometabolous (complete)

Part III: Place the letter of the host or location that corresponds with each insect next to the common name of that insect.

COMMON NAME HOST OR LOCATION

- | | |
|-----------------------------------|-----------------|
| _____ 31. Bee fly | A. Cattle |
| _____ 32. Plum Curculio | B. Swine |
| _____ 33. Screwworm | C. Home |
| _____ 34. Barklouse | D. Log pile |
| _____ 35. Subterranean termite | E. Stream |
| _____ 36. Scorpion | F. Flowers |
| _____ 37. Hog louse | G. Wood, stump |
| _____ 38. German cockroach | H. Juniper |
| _____ 39. Fowl tick | I. Dead animal |
| _____ 40. Buffalo gnat (immature) | J. Tree trunk |
| _____ 41. Bagworm | K. Fruit trees |
| _____ 42. Red admiral | L. Peaches |
| _____ 43. Pea weevil | M. Stored grain |
| _____ 44. Carrion beetle | N. Nettles |
| _____ 45. San Jose scale | O. Poultry |

Part IV: Place the letter of the type of mouth part that corresponds with each insect next to the common name of that insect. (Note that the life stage is given for the insect.)

COMMON NAME MOUTH PART TYPES

- | | |
|---|--|
| _____ 46. Old house borer (immature) | A. Chewing |
| _____ 47. Spittlebug (adult) | B. Piercing-sucking |
| _____ 48. Cat flea (immature) | C. Rasping-sucking |
| _____ 49. Soldier beetle | D. Reduced or none functional mouthparts |
| _____ 50. Human body louse | |
| _____ 51. Psocids | |
| _____ 52. Damselfly (naiad) | |
| _____ 53. Silverfish | |
| _____ 54. Caddisfly (adult) | |
| _____ 55. Mayfly (naiads) | |
| _____ 56. Tarnished plantbug (immature) | |
| _____ 57. Onion thrips | |
| _____ 58. Buckeye (adult) | |
| _____ 59. Springtail | |
| _____ 60. Green lacewing (adult) | |

Part V: Match the group with the immature forms that are present in the group.

GROUP IMMATURE

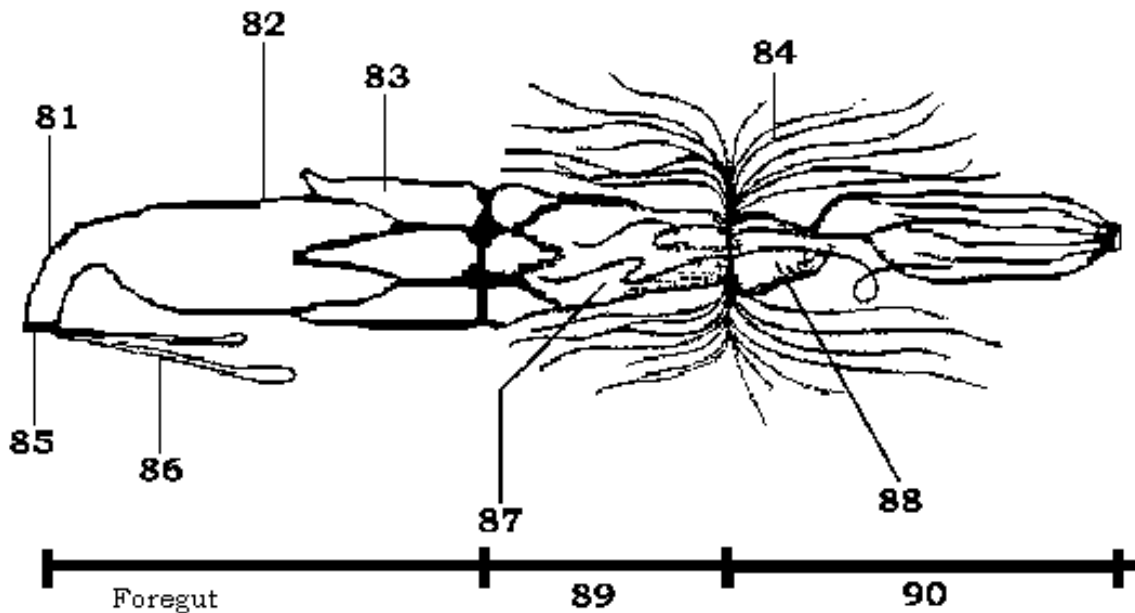
- | | |
|-------------------------|-----------------|
| _____ 61. Spiders | A. Grubs |
| _____ 62. Coleoptera | B. Caterpillars |
| _____ 63. Scale insects | C. Wigglers |
| _____ 64. Damselflies | D. Maggots |
| _____ 65. Mosquitoes | E. Crawlers |
| _____ 66. Lepidoptera | F. Naiads |
| _____ 67. Click beetles | G. Nymphs |
| _____ 68. House flies | H. Wireworms |
| _____ 69. Antlions | I. Spiderling |
| _____ 70. Stink bugs | J. Doodlebugs |

Part VI: Fill in the blank with your best answer.

71. Beetles have front wings called _____.
72. A device called _____ is used to separate small insects from plant debris or soil.
73. Insects belong to the phylum _____.

- 74. The wings of thrips are fringed with _____.
- 75. Members of the order Hemiptera are also called the _____.
- 76. Mosquitoes are "true flies" in the order _____.
- 77. Herbivores feed on _____.
- 78. Mayflies should be preserved in _____ for scientific study.
- 79. A sealed container with sand saturated with water can be used as a _____.
- 80. A tool used to collect small insects like a miniature vacuum is called an _____.

Part VII: Label the insect body parts on the diagram below by filling in the blank lines.



Insect Digestive System

- 81. _____ 86. _____
- 82. _____ 87. _____
- 83. _____ 88. _____
- 84. _____ 89. _____
- 85. _____ 90. _____

Part VIII: Answer "T" for true and "F" for false on the space provided for the statements below.

- 91. ____ Termites digest wood with the help of symbiotic bacteria in their gut.
- 92. ____ Caddisflies feed on grass.
- 93. ____ The greenbug feeds on small grain plants.
- 94. ____ About 1/4 of all insect species are beetles.
- 95. ____ Barklice have sucking mouthparts.
- 96. ____ Lacewings are pests in vegetables.
- 97. ____ The front wings of Hemiptera meet in a straight line down the back.
- 98. ____ Naiads live in water.
- 99. ____ Silverfish commonly swim well.
- 100. ____ Sucking lice should be preserved on insect pins.

Tie Breakers

Part I: Define the following terms.

1. Integrated pest management: _____

2. Parasites: _____

3. Predators: _____

Part II

List several insect control tactics: _____

Part III

What is the state insect of Texas: _____

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