These questions are meant primarily to give an idea of the exam questions, and may not accurately reflect current reference materials or emphasis of exams

CATEGORY B – THE BIOLOGY AND CONTROL OF MOSQUITOES

PRACTICE QUESTIONS

1. The genus of mosquitoes which lay their eggs in rafts on the water surface is:

   A. *Anopheles.*
   B. *Aedes.*
   C. *Culex.*
   D. *Psorophora.*

2. Environmental conditions favoring long-term survival of adult mosquitoes include:

   A. Heavy rainfall and strong winds.
   B. Moderate temperatures and high humidity.
   C. Hot temperatures and low humidity.
   D. Short days and snowfall.

3. Mosquito larvae with no siphons are in the genus:

   A. *Anopheles.*
   B. *Aedes.*
   C. *Culex.*
   D. *Psorophora.*

4. A control technician identifying a problem mosquito as *Aedes sierrensis* should consider inspecting and treating which sources?

   A. Snow-melt pools and river overflows.
   B. Saltwater and freshwater marshes.
   C. Treeholes and man-made containers.
   D. Agricultural irrigation ponds.

5. The blood meal sources of most *Culex* mosquito species include:

   A. Large and small mammals.
   B. Cattle and humans.
   C. Birds and small mammals.
   D. None of the above.

6. The western malaria mosquito is scientifically known as:

   A. *Anopheles freeborni*
   B. *Aedes aegypti.*
   C. *Culex tarsalis.*
   D. *Psorophora columbiae.*

7. A female mosquito with a blunt abdomen, short palpi, and radial (R) and median (M) wing veins in line is in the genus:

   A. *Anopheles.*
   B. *Culiseta.*
   C. *Culex.*
   D. *Psorophora.*

8. Which species is not recognized as a malaria vector in California?

   A. *Anopheles franciscanus.*
   B. *Anopheles freeborni.*
   C. *Anopheles hermsi.*
   D. *Anopheles punctipennis.*

9. Saltwater marsh breeding mosquitoes in California include:

   A. *Aedes ventrovittis and Aedes tahoensis.*
   B. *Aedes melanimon and Aedes nigromaculis.*
   C. *Aedes dorsalis and Aedes squamiger*
   D. *Aedes sierrensis.*

10. *Culex erythrothorax* larvae are usually associated with:

   A. Organic pollutants.
   B. Swiftly moving water.
   C. Treeholes.
   D. Tule and cattail plants.

11. Water conditions generally conducive to mosquito development include:

    A. Standing, clean water.
    B. Swiftly moving water.
    C. Standing, organically rich water.
    D. Water standing for very short times

12. Categories of mosquito sources include:

    A. Residential sources.
    B. Community or industrial sources.
    C. Agricultural sources.
    D. All of the above.

13. Community or industrial mosquito sources include:

    A. Sewage plants, channels, and street gutters.
    B. Lakes, streams, and snow-melt pools.
    C. Wading pools, bird baths, and fish ponds.
    D. Saltwater marshes and treeholes.

14. Transmission of human malaria involves female mosquitoes of the genus:

    A. *Aedes.*
    B. *Anopheles*.
    C. *Culex.*
    D. *Coquillettidia.*

15. The primary vector of arboviral encephalitides in California is:

    A. *Culiseta incidens.*
    B. *Culex stigmatosoma*
    C. *Culex tarsalis.*
    D. *Culiseta inornata.*

16. In a typical disease transmission cycle, the disease causing organism is known as a:

    A. Pathogen.
    B. Vector.
    C. Host.
    D. Reservoir.

17. A method of reducing the risk of developing insecticide resistance in target mosquito populations is to:

    A. Rotate use of different pesticide classes.
    B. Apply larger pesticide dosages.
    C. Apply smaller pesticide doses more often.
    D. Treat the source more often.

18. Another term for physical control is:

    A. Environmental manipulation.
    B. Regulatory mechanisms.
    C. Civic responsibilities.
    D. Integrated management.

19. The scientifically planned control of mosquito populations through timely use of a variety of control strategies and methods is called:

    A. Biological mosquito control.
    B. Chemical mosquito control.
    C. Physical mosquito control.
    D. Integrated pest management.

20. An essential element for successful adulticiding operations is the presence of:

    A. Hot temperatures.
    B. A slight wind of 12 mph or more.
    C. A thermal inversion layer.
    D. All of the above.

21. In vector control, the term IPM stands for:

    A. Integrated Pest Management.
    B. Insect Population Monitoring.
    C. Insecticides, Pesticides, and Mosquitocides.
    D. International Pesticide Machinery.

22. The primary mosquito problem associated with agricultural areas results from:

    A. Sources created by overflowing streams.
    B. Sources associated with crop irrigation.
    C. Ponding of rainfall.
    D. Residential sources around farm buildings.

23. Physical control of mosquitoes in large lakes may be enhanced by:

    A. Creating numerous small islands.
    B. Keeping shoreline depths shallow.
    C. Removing emergent vegetation.
    D. All of the above.

24. The objectives of good physical control practices for mosquito control are to:

    A. Prevent accumulation of water.
    B. Prevent homeowner misuse of water.
    C. Provide natural predators in salt marshes.
    D. Use the least amount of pesticides.

25. The system of physical control most favored for mosquito control in coastal salt marshes where it can be used is:

    A. Drainage.
    B. Filling.
    C. Circulation of tidewater.
    D. Impoundment of water.

26. Good physical control practices for mosquito control around residential areas include:

    A. Overturning all water holding containers.
    B. Cleaning gutters, bird baths, and fountains.
    C. Filling all tree holes with sand or cement.
    D. All of the above.

27. A good agricultural practice contributing to physical control of mosquitoes in rice fields is:

    A. Circulation of tidewater.
    B. Stocking with mosquitofish.
    C. Good water-tight and weed-free levees.
    D. Drainage to prevent standing water of more than 3 days in duration.

28. Possible advantages of chemically controlling mosquitoes include:

    A. The need for repeated dosages over time.
    B. Rapid control of mosquito populations.
    C. Development of insecticide resistance.
    D. No adverse environmental hazards.

29. Insecticides ready to use as supplied by the manufacturer without further dilution or mixing include:

    A. Granules.
    B. Emulsions.
    C. Solutions.
    D. Wettable powders.

30. The movement of insecticides to non-target areas is known as:

    A. Insecticide application.
    B. Spraying.
    C. Drift.
    D. Overspray.

31. Examples of biorational insecticides include:

    A. Diflubenzuron.
    B. Methoprene.
    C. *Bacillus thuringiensis* var *israelensis*.
    D. All of the above.

32. Insecticide resistance is defined as:

    A. Ability to withstand desiccation.
    B. inability to undergo normal development.
    C. Ability to withstand poisons lethal to earlier populations.
    D. Ability to exhibit great variability.

33. Pyrethrums and pyrethrins are:

    A. Non-selective.
    B. Derived from botanical origins.
    C. Quick acting.
    D. All of the above.

34. A fumigant sometimes used to control adult mosquitoes in enclosed areas is:

A. Fenthion.
B. Dichlorvos.
C. Propoxur.
D. Piperonyl butoxide.