More Massachusetts Applicator License/Core Exam Practice Questions

(NOTE – These are not the actual test questions, nor are they intended to be. These are practice questions that cover content the real questions are likely to ask about.)

1. Which of the following includes the information found on containers of pesticides?
   1. MSDS
   2. Label
   3. Labeling
2. A plant that is growing where we don’t want it, or an unwanted animal is \_\_\_\_\_\_\_\_\_
   1. something bad
   2. a beneficial
   3. a pest
3. Small, microscopic worm-like creatures that can parasitize animals are called \_\_\_\_\_\_
   1. namastes
   2. nematodes
   3. bacteria
4. Non-chemical control tools like insect electrocutors and mosquito traps \_\_\_\_\_\_\_
   1. are classified as low risk
   2. are classified as devices
   3. must be registered by the Mass Department of Public Health
5. Driving a vehicle carrying pesticides meets the definition of \_\_\_\_\_\_\_
   1. pesticide moving in the environment
   2. pesticide misuse
   3. pesticides application
6. Insects have different antennae shapes that can be useful in identifying pests. Which of the following would be considered shapes of antennae found in the insect world?
   1. chewing and siphoning
   2. feathered, clubbed and beaded
   3. piercing-sucking and sponging
7. Most adult insects have two pair of wings, but not all. Which of the following have no wings?

a. bed bugs

b. beetles

c. ants

1. The sense of smell and touch is located on which body part?
   1. The legs
   2. The wings
   3. The antennae
2. Openings that allow insect to breath are located on the \_\_\_\_\_\_\_\_
   1. head
   2. thorax
   3. abdomen
3. Ticks and mites have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. biting mouthparts

b. piercing-sucking mouthparts

c. siphoning mouthparts

1. Ballooning refers to how spiders \_\_\_\_\_\_\_\_\_\_\_\_
   1. may be transported or spread in the environment
   2. communicate with one another
   3. reproduce
2. Which of the following are long, flat, wormlike animals with one pair of legs on each body segment, move quickly and have chewing mouthparts?
   1. millipedes
   2. aphids
   3. centipedes
3. A plant that grows from seed, matures, produces more seed for the next generation and dies in one year or less is called \_\_\_\_\_\_\_\_\_\_\_\_

a. an annual

b. a biennial

c. a perennial

1. A plant that grows from seed, develops a heavy root system or cluster of leaves and produces seed in a second year of growth and dies is called \_\_\_\_\_\_\_\_

a. an annual

b. a biennial

c. a perennial

1. A plant that grows for more than two years and may or may not produce seed is called \_\_\_\_\_\_\_\_\_\_\_\_

a. an annual

b. a biennial

c. a perennial

1. The term pheromone refers to \_\_\_\_\_\_
   1. communication
   2. reproduction
   3. naturally occurring compounds found in the environment
2. The pest that causes plants diseases like wood rot is called \_\_\_\_\_\_\_\_
   1. a bacteria
   2. a fungi
   3. a virus
3. Spores are like seeds produced by \_\_\_\_\_\_\_\_\_\_\_\_\_ that allow it to spread in the wind or in rain splash
   1. bacteria
   2. fungi
   3. chinch bugs
4. *Bacillus thuringiensis* is a beneficial \_\_\_\_\_\_\_\_\_ that put onto some crop plants like corn can kill pest caterpillars without harming the plant.
   1. virus
   2. bacteria
   3. insect
5. Which of the following types of pesticides are actually used to alter desirable plants, not weeds?
   1. Fungicides & miticides
   2. Growth regulators & defoliants
   3. Piscicides & Mulluscides
6. Which of the following describes a pesticide mode of action intended to be effective only at the time of application, or for a short time afterward?
   1. Residual insecticide
   2. Nonresidual insecticide
   3. Stomach poison
7. Which of the following pesticide types works after being ingested?
   1. Stomach poison
   2. Contact poison
   3. Residual poison
8. A selective, or narrow spectrum poison would be one that \_\_\_\_\_\_\_\_
   1. works only on chinch bugs
   2. works only on cockroaches, ants and moths
   3. works only on grasses and leafy weeds

1. Inert ingredients (listed on pesticide labels) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. make the pesticide *a.i.* more usable
   2. are needed to dilute the product
   3. also are toxic to the listed target pests
2. Trade, brand, or product name used by manufacturers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Identifies the chemical components and structure of the active ingredient
   2. Is the name the producer uses to advertise its product to customers
   3. will differ between similar chemical compounds
3. A liquid dissolved in another liquid is called a(n) \_\_\_\_\_\_\_\_\_\_
   1. solution
   2. emulsion
   3. wettable powder
4. A mixture of finely divided, solid particles dispersed in a liquid (similar to chocolate milk) is called a(n) \_\_\_\_\_\_
   1. thick slurry
   2. suspension
   3. wettable powder
5. If salad oil mixed with vinegar to make salad dressing was a pesticide, it would classified as \_\_\_\_\_\_\_\_\_\_
   1. an emulsifiable concentrate
   2. a carrier mix
   3. an emulsion
6. Which of the following formulations poses the greater applicator risk from handling that formulation during measuring and mixing?
   1. Water dispersable granules (WDG)
   2. Wettable powders (WP or W)
   3. Invert emulsions (IE)
7. Surfactants are also called\_\_\_\_\_\_\_\_\_\_\_
   1. active ingredients
   2. inactive ingredients and obsolete
   3. wetting agents and spreaders
8. Which of the following is an adjuvant that increases the adhesion of solid particles to target surfaces?
   1. sticker
   2. extender
   3. plant penetrant
9. Buffers, acidifiers, thickeners and foaming agents are examples of \_\_\_\_\_\_\_
   1. different active ingredients
   2. different synthetic pyrethroids
   3. different adjuvants
10. Which of the following are more likely to be sensitive to pesticide exposure and at higher risk?
    1. Heavier persons and those taking aspirins
    2. Youngest and oldest individuals
    3. Married and middle age individuals
11. Pesticide A has an LD50 of 750 milligrams per kg of body weight, pesticide B has an LD 50 of 75 and pesticide C has an LD50 of 7500. Which pesticide would carry the signal word Warning?
    1. Pesticide A
    2. Pesticide B
    3. Pesticide C
12. Which of the following is the least likely potential route of applicator pesticide exposure?
    1. Through the feet
    2. Through the arms
    3. Through the nose
13. Which of the following formulations are more readily absorbed through the skin?
    1. Water based formulations
    2. Oil based formulations
    3. Wettable powder formulations
14. Where would you typically find information on the label related to routes of exposure for that individual pesticide?
    1. Just after the use directions
    2. In the precautionary statements
    3. With the disposal directions
15. LC50 and LD 50 have limitations because they \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. only measure one toxic effect
    2. do not measure the potential chronic effects
    3. both a & b
16. Which of the following are ways PPE degrade and become less effective at preventing pesticide exposure?
    1. Exposure to cold and heat
    2. Exposure to liquids
    3. Neither a nor b
17. When applying pesticides overhead \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. Gloves should be worn over the sleeves
    2. Gloves should be worn inside the sleeves
    3. Gloves are optional, unless required by the label
18. For jobs in which your arms are mostly lowered \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. Gloves should be worn over the sleeves
    2. Gloves should be worn inside the sleeves
    3. Gloves are optional, unless required by the label
19. Which of the following federal agencies is responsible for testing and certifying respirators used in conjunction with pesticides?
    1. EPA
    2. Department of Agriculture
    3. NIOSH
20. Respirators that filter out dusts and mists should have filters changed \_\_\_\_\_\_\_\_\_\_\_\_\_
    1. every 8-10 hours worth of use
    2. if it’s getting hard to breath
    3. before washing, rinsing and allowing to dry out

1. Respirators used to filter out vapors and gases should have their cartridges replaced \_\_\_\_
   1. every 4-6 hours worth of use, or more frequently if used often
   2. if you taste or smell pesticide, or the nose burns or stings
   3. according to standards set by the WPS
2. Heat stress and heat illness are sometimes confused with pesticide poisoning.

Heat stress \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. is caused by exposure to pesticides
  2. happens on hot, muggy days in the summer
  3. is a buildup of body heat generated by muscles during work, especially on hot days

1. Heat illness \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Is more related to physical conditioning and high levels of activity
   2. Includes disorders that can occur when the body is subjected to more heat than it can cope with
   3. Is treatable with anti-biotics and vitamin D
2. Pesticides get into the environment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Both b & c below
   2. when they are applied
   3. when they are spilled or disposed
3. Secondary poisoning is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. when a second animal feeds on the poison, often rodenticides

1. when a non-target animal feeds on a poison, or is unintentionally exposed to a pesticide
2. when an animal feeds on another animal that has been poisoned and becomes poisoned
3. Sensitive areas include sites where living things could easily be injured by a pesticide. Which of the following would most likely not be considered a sensitive area?
   1. Railroad yards and rail track beds
   2. Apiaries and surface waters
   3. Public gardens and organic farms
4. The Endangered Species Act (ESA) is a federal law \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. makes it illegal to kill, harm, or collect endangered or threatened wildlife or fish
   2. is administered by the US Fish & Wildlife Service of the Department of the Interior
   3. both a & b above
5. An aquifer is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. the geologic formation (e.g. sand, gravel, bedrock) from which groundwater can be drawn
   2. the boundary between the saturated zone and the overlaying unsaturated rock and soil
   3. subject to being affected by fracking
6. The water table is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. often described as a layer of water in the ground, similar to a large, flat table
   2. the boundary between different layers of chemical and water in the ground
   3. the boundary between the overlying unsaturated rock or soil and the saturated zone
7. Anything that increases the likelihood and amount of runoff from a site treated with pesticides will increase the risk of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. surface water contamination
   2. air pollution
   3. deep well contamination
8. Groundwater is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. present in the ground
   2. water that enters an underground pool and is subject to contamination for from drift and overspray
   3. water in aquifers beneath the soil surface from which well water is obtained or surface springs are formed
9. Biomagnification \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. occurs when concentrations of poison accumulate in animals as poisoning goes up the food chain
   2. is an expression used to describe examining small pests under microscopic magnification
   3. refers to contaminated water mixed with microbes
10. Which of the following sites would represent a potential point-source pollution risk?
    1. The mix tank of a resting farm tractor set up to prepare (dilute) finished spray
    2. An apple orchard being treated for codling moths and aphids
    3. The turf area around a large condominium complex with lush, green lawns
11. The initials BMP stand for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. Before Modern Practices
    2. Basic Mixing Practices
    3. Best Management Practices
12. Containment pads are used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. where pesticides are often mixed and loaded into equipment
    2. and designed to contain spills, leaks, overflow and waste water
    3. both a & c
13. Using check valves, air gaps and drawing water from a tank or bottle are ways to \_\_\_\_\_
14. improve treatment efficiency and protect the environment
15. prevent back-siphoning from contaminating groundwater or surface water
16. prevent equipment failures that could result in contamination
17. Reduced uptake, metabolic resistance, target site insensitivity and behavioral change refer to \_\_\_\_\_\_\_\_\_\_\_\_\_
    1. length of a pest’s life cycle
    2. mechanisms of resistance
    3. pest biology
18. Practicing IPM, limiting pesticide use to only when needed, applying at label rates and rotating pesticides with different modes of action \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. represents economical and efficient pesticide use
    2. are good resistance management practices
    3. have little to no effect on the level of control when practiced in farm settings
19. The goal of IPM is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. save money and labor
    2. prevent pests from reaching economically or aesthetically damaging levels with the least risk to people and the environment
    3. make sure the correct pesticides are chosen for the application required and are then applied using the correct equipment
20. The first step in any pest management program is to \_\_\_\_\_\_\_\_\_\_
    1. interview the homeowner, grower or concerned parties
    2. identify the pest
    3. select the appropriate pesticide and formulation
21. The pest population density at which control measures are needed to prevent a pest from reaching the economic injury level is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
22. economic threshold (ET)
23. action threshold (AT)
24. economic injury level (ET)
25. The pest population density that causes losses equal to the cost of the control measures is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. economic threshold (ET)
    2. action threshold (AT)
    3. economic injury level
26. The pest level at which control is warranted for reasons other than economics

is called \_\_\_\_\_

* 1. economic threshold (ET)
  2. action threshold (AT)
  3. economic injury level (ET)

1. Which of the following would *not* be considered natural pest control?
   1. Using organic pesticides
   2. Climatic factors such as wind, temperature, sunshine and rain
   3. Natural enemies such as predators, parasites and pathogens
2. Cultural controls \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. involve using certain ethnic groups to plant and harvest crops
   2. involves using sticky traps, lures and snap traps (for rodents)
   3. involve altering the environment
3. Sometimes plants and animals can be bred or selected to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. provide improved control measures
   2. to resist specific pest problems
   3. become less susceptible to different pesticide groups
4. The best time to take preventive pest control approaches \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. is after first correctly identifying the pest
   2. is when a pest is not a problem and you want to keep it that way
   3. is before the pest problem reaches the action threshold level.

1. Approved State Lead Agencies (SLA) are allowed to\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. relax label requirements on specific pesticides
   2. allow exemptions from specific FIFRA requirements
   3. enact laws and regulations more strict than FIFRA
2. The US EPA classifies all pesticides as either RU or General use. How can you tell if a particular pesticide is classified as general use?
   1. The label statement will say CAUTION
   2. The label statement will say WARNING
   3. The label statement will not say RESTRICTED-USE
3. FIFRA Section 25(b) pesticides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. are exempt from registration
   2. are low toxicity pesticides with the signal word CAUTION
   3. are used in agriculture
4. Agricultural workers covered under the federal WPS include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. owners and operator of agricultural establishments
   2. individuals who mix, load or apply pesticides, clean or repair pesticide application equipment
   3. individuals who perform tasks related to cultivation and harvesting of plants
5. The WPS requires agricultural employers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. provide notification to workers about treated areas and supply decontamination supplies
   2. provide safety training and access to labeling and site specific information
   3. a & b above
6. A variety of actions are unlawful under the provisions of FIFRA. Which of the following are *not* unlawful?
   1. Mixing, loading and applying pesticides with proper applicator certification
   2. Refusing to keep records; detaching, altering or defacing any part of a container or label
   3. Making a guarantee other than that specified by the label
7. Pesticide tolerances apply to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. the legal amount of pesticide that may be applied to food crops
   2. domestic and imported foods
   3. the total amount of a particular used and how it is mixed
8. Tolerances are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. described and listed on pesticide labels
   2. are not listed on pesticide labels
   3. established by USDA
9. Pesticide remaining on a crop for an extended period after application is called a \_\_\_\_\_
   1. deposit
   2. residue
   3. problem
10. Pesticide storage areas allowed to freeze \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. can extend the useful residual life of pesticides
    2. can be difficult to mix and get back into solution
    3. can cause formulations to break down and containers to rupture
11. Pesticide storage areas exposed to high heat \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. can cause labels to peel and become difficult or impossible to read
    2. can cause dry formulations to cake, making them harder to handle, measure and apply
    3. cause some liquids to become flammable, volatilize and generate dangerous fumes
12. Which of the following are *not* recommended to be in the service vehicle in order to be prepared in case of an accident?
    1. label, SDS, PPE and spill kit
    2. cell phone (or communication device) & 24 hr. emergency number
    3. tape, scissors and sun glasses
13. Which document has the most detailed information on chemical properties, first aid and emergency procedures to be followed in the event of a spill, leak fire or transportation crisis?
    1. MSDS
    2. the label
    3. the manufacturer’s labeling
14. The flooring of cargo areas of vehicles transporting pesticides should be \_\_\_\_\_\_\_\_\_\_\_
    1. porous
    2. non-porous
    3. absorbent
15. A truck (rather than sedans) is preferred for transporting pesticides because \_\_\_\_\_\_\_\_\_\_\_\_\_
    1. there is more space to store and carry pesticides
    2. vehicle size and weight provides better driver protection
    3. there is a physical barrier between the cargo area and the passenger compartment
16. Which of the following warning signs are recommended for pesticide storage/holding areas?
    1. Warning-Pesticides: Keep Out: Private Property
    2. both a & c
    3. No Vehicles Beyond This Point: No Trespassing
17. Which of the following are *not* key items in a vehicle/facility spill kit?
    1. Sealable plastic containers, fire extinguishers and vehicle maintenance log
    2. PPE, containment tubes or pads and absorbent material
    3. Shovel, broom, dust pan, sweeping compound and heavy-duty detergent
18. Household bleach diluted in water (diluted to 30%) and hydrated lime \_\_\_\_\_\_\_\_\_\_
    1. can be used to keep office spaces and stock rooms clean and safe from pesticides
    2. can be used to denature excess, unwanted liquid pesticides
    3. can be used to decontaminate surface spaces after having spills cleaned up
19. A spill is defined as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    1. unintended pesticide overspray
    2. an accidental release of a pesticide
    3. applying pesticides to the wrong property or site
20. Cone, flooding flat-fan, even flat-fan and flat fan and multi-pattern refer to \_\_\_\_\_\_
    1. equipment sizes used in agriculture
    2. equipment sizes used with certain types of pesticides
    3. common spray patterns
21. Rotary and drop spreaders are two common types of applicators used to apply \_\_\_\_\_\_\_
    1. Wettable powders
    2. Granular formulations
    3. Suspensions

1. Equipment should be cleaned and decontaminated after use. The most ideal location to clean and decontaminate equipment is \_\_\_\_\_\_\_\_\_\_\_
   1. back at the pesticide and equipment storage facility
   2. outside, rather than inside
   3. at the application site
2. Spray Drift. As droplet size decreases the spray particles fall more slowly, evaporate more quickly and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. are less likely to drift
   2. are more likely to drift
   3. are not affected by other drift factors
3. Spray Drift. The higher boom height is set above crop target surfaces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. reduces drift potential
   2. has little to no effect on drift potential
   3. increases drift potential
4. Overspray and drift \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. result from errors in applicator judgement
   2. may be detrimental or beneficial
   3. are usually limited to liquid pesticide sprays
5. The most important factor effecting drift potential is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. the temperature
   2. droplet size
   3. relative humidity and cloud cover (hiding direct sun light exposure)
6. The first rule of drift management is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. know the characteristics of your pesticides
   2. know when not to spray
   3. know your equipment

1. The size of buffer zones around a site can influence the decision to spray or not, considering wind speeds. Buffer zones are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. unsprayed areas
   2. previously sprayed areas
   3. areas flagged off limits
2. How many times do you rinse liquid pesticide containers to decontaminate them?

a. 3 times

b. 4 times

c. 5 times

100. The EPA Registration and Establishment numbers:

a. are different numbers that essentially designate the same information

b. indicate a unique pesticide identification and where it was manufactured

c. are co-issued by the Federal and state governments

1. The key signal words found on every pesticide label are:
   1. general-use, restricted-use and ready-to-use
   2. keep out of reach of children
   3. caution, warning, danger-poison
2. . Which of the following items are not found on pesticide labels?
   1. trade name, formulation, ingredient statement & manufacturer
   2. fire fighting directions, inert ingredients & vehicle loading instructions
   3. formulation, use directions & PPE needed
3. . States have the option of enacting laws and regulations:
   1. that may be more restrictive than that required by FIFRA
   2. that may be less restrictive than that required by FIFRA
   3. that may exempt certain classes of pesticide applicator
4. . Uncertified individuals:
   1. may never purchase or apply restricted-use pesticides
   2. may be exempted to purchase and apply restricted-use pesticides
   3. may apply restricted-use pesticides under the direct supervision of an appropriately registered certified person

1. . Cross contamination is when:
   1. two or more products may be mixed together without impacting how effective each is when applied separately
   2. two pesticides mixed become more potent than the sum of the two
   3. an herbicide becomes mixed with a fertilizer, insecticide or rodenticide
2. . We often read (and hear) the expression, “*The label is the law*.” Which of the

following best describes what this means?

* 1. The label provides *suggested* ways of handling that product
  2. The label provides *recommended* ways of handling that product
  3. The label provides *required* ways of handling that product

1. . An attractive nuisance:
   1. usually involves cases where bees and other beneficial insects are drawn to pesticide treated areas
   2. usually involves cases where children are involved
   3. usually involves cases where children are attracted to ground equipment and become injured from carelessness
2. . A carcinogen is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a substance that is able to produce changes in living cells
   2. a substance that is able to cause malignant tumors (cancer)
   3. a substance that can produce abnormalities or defects in living humans or animal embryos
3. . A teratogen is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a substance that is able to produce changes in living cells
   2. a substance that is able to cause malignant tumors (cancer)
   3. a substance that can produce abnormalities or defects in living humans or animal embryos
4. . A mutagen is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a substance that is able to produce changes in living cells
   2. a substance that is able to cause malignant tumors (cancer)
   3. a substance that can produce abnormalities or defect sin living humans or animal embryos
5. . Rinsate is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. liquid resulting from rinsing pesticide container or application equipment
   2. liquid used to dilute pesticide concentrate to a usable finished mix
   3. adjuvant added to make pesticides more effective
6. . Cat and dog collars used to kill fleas and ticks would be considered \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a bait formulation
   2. non-chemical devices
   3. a pesticide impregnated material
7. . An acaricide is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a pesticide used to kill roaches and ants
   2. a pesticide used to kill fleas and flies
   3. a pesticide used to kill mites and ticks
8. . Carbamates are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. a class of enzymes produced by the human body
   2. a class of naturally occurring pesticides found in the environment
   3. a class of cholinesterase-inhibiting pesticides

115. A class of chemicals that cause a loss of moisture from plant leaves or from insect bodies

are called \_\_\_\_\_\_\_

1. lipophyllics
2. desiccants
3. organics

116. A persistent pesticide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. remains active in the environment more than one growing season

b. breaks down rapidly in the environment

c. lasts only one season

117. Repellents are pesticides that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. attract fleas and ticks

b. repel fleas and ticks

c. kill fleas and ticks on contact

118. A spot treatment is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. an application to a small, localized area where pests are found

b. an application directly into cracks, crevices and voids

c. made by adjusting the speed of the tractor

119. A broadcast application is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. a treatment made over an entire field or surface area

b. a targeted treatment to minimize human exposure

c. a treatment intended to kill flying insects such as mosquitoes

120. inorganic pesticides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. lack organics

b. are produced from mineral sources and lack carbon

c. are synthetic pyrethroids

**END**

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