

- 1) Pesticide applicators must understand this law and their responsibilities to protect the public and the environment from [**pesticide misuse**].
- 2) [**State**] and [**federal**] laws also affect pesticide use.
- 3) [**Safety**] is essential to every part of equipment use, and precautions must be taken to prevent [**off-target**] application of pesticides, to wear the appropriate [**personal protective equipment (PPE)**], and to use the pesticide consistent with the [**label**] instructions.
- 4) It is important for pest control technicians to realize that [**pesticide**] use may not be required in every situation.
- 5) A variety of [**integrated pest management (IPM)**] techniques that minimize the use of pesticides may also be worthwhile.
- 6) Pest management can be complex. It is a matter of using the right technologies and requires special [**equipment**] and [**safety measures**].
- 7) To be successful, it must be effective and not adversely affect [**people**] or the [**environment**].
- 8) Ignorance of the law is [**never**] an accepted excuse for a violation.
- 9) Ultimately, responsibility for protecting the environment from the possible adverse effects of pesticide use rests on the pesticide [**applicator**].
- 10) Each plant and animal is part of a complex [**food chain**]; break one of the links and others are adversely affected. One disappearing plant can take with it up to [**30**] other species that depend on it, including insects, higher animals and even other plants.
- 11) Pest management technicians may see their normal work as unlikely to affect the environment, but spills and leaks during mixing, loading, and transporting, or incorrect disposal can lead to pesticides in [**ground**] or [**surface**] water or in the habitat of [**non-target**] organisms.
- 12) Commercial pest control operators often service national parks, schools, and other [**sensitive**] areas.

- 13) Applicators have an even greater responsibility toward the [**public**] because of the indoor use of pesticides. There is a greater risk of exposing people to pesticides in these [**enclosed**] environments. All efforts should be made to achieve pest management goals through [**minimal**] use of pesticides in and around buildings. When pesticides are used, they should be applied in a manner that will [**prevent**] human contact.
- 14) In recognition of the many tasks that individuals in pest control must perform, the title [**technician**] is used in this manual to denote a pesticide applicator, a pest control operator, and other individuals with titles that refer to the job of suppressing or exterminating pests.
- 15) Some pertinent and relevant laws to the technician include the [**Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**], the [**Occupational Safety and Health Act (OSHA)**], and the [**Endangered Species Act**].
- 16) The pesticides must be classified as either “[**general-use**]” or “[**restricted-use**].”
- 17) [**Ready-to-use**] pesticides are those used from the manufacturer’s original container (aerosols, pump sprays, strips, baits) with no need to mix or load into application equipment.
- 18) The records must be made available to the \_\_\_\_\_ upon request.
- a) **SPCB**
  - b) CalEPA
  - c) Dept. of Consumer Affairs
  - d) City Council
- 19) All pest control service records shall contain the following:
- The common name and [**active ingredient**] of the pesticide applied
  - The [**EPA Registration**] number of the pesticide applied
  - The name and [**License**] number of the applicator
  - The name and contact information of the [**Pest Control Company**]
  - The [**amount**] of pesticide applied
  - The [**target**] pest
  - The [**date**] the pesticide was applied
  - The [**address**] or service location of pesticide application
- 20) A pesticide must be used in a manner consistent with its [**label**].

- 21) Application equipment must be properly [**calibrated**].
- 22) Before applying a pesticide, the applicator will [**identify**] any [**sensitive**] areas that are located [**adjacent**] to the target area and will use appropriate [**precautionary**] measures to prevent the direct discharge of pesticides to those areas.
- 23) To control pests of structures, pesticide application is the only means for suppressing pests.
- a) True
  - b) False**
- 24) Which federal legislation specifies that all pesticides be classified as either general-use or restricted-use?
- a) California Structural Pest Control Act
  - b) Federal Structural Pest Control Act
  - c) FIFRA**
  - d) Endangered Species Act
  - e) OSHA
  - f) S.H.I.E.L.D.
  - g) Environmental Protection Agency
- 25) Structural pest managers do not have to concern themselves with the possibility of harming endangered species.
- a) True
  - b) False**
- 26) Any person who mixes, loads, or otherwise uses pesticides must have immediate access to a [**spill kit**].
- 27) Application equipment must be properly calibrated and pesticide application or loading equipment that is designed to draw water must have a(n) \_\_\_\_\_ device.
- a) Automatic Mixture
  - b) Chemical-Proof Seal
  - c) Anti-siphoning**
  - d) Audio Spill Alarm



- 36) All highly toxic pesticides that will very likely inflict acute toxicity in a human through oral, dermal, or respiratory ingestion carry a [**DANGER** signal word accompanied by the word [**POISON** with a [**skull and crossbones** image.
- 37) Pesticides labeled DANGER generally have an oral LD-50 rating of \_\_\_\_\_:
- a) 0 g/kg
  - b) 1-50 g/kg**
  - c) 51-100 g/kg
  - d) 101+ k/kg
- 38) WARNING label pesticides have an LD-50 of:
- a) 1-50 g/kg
  - b) 51-500 g/kg**
  - c) 1000 g/kg
  - d) 2,000 g/kg
- 39) a DANGER a) 1-50 g/kg LD-50
- 40) b WARNING b) 51-500 g/kg LD-50
- 41) c CAUTION c) 501-5000 g/kg LD-50
- 42) What is the order of signal words from most toxic to least toxic?
- a) DANGER, WARNING, CAUTION**
  - b) DANGER, CAUTION, WARNING
  - c) CAUTION, WARNING, DANGER
  - d) WARNING, DANGER, CAUTION
- 43) People who use pesticides have the LEGAL responsibility to \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ the label directions.
- a) read, generally adhere to, and basically follow
  - b) read, ignore, and blow off
  - c) read, understand and kind of, somewhat, follow
  - d) read, understand and follow**
- 44) Every pesticide should carry the warning "KEEP OUT OF THE REACH OF CHILDREN."
- a) True**
  - b) False

45) Every pesticide that is not FIFRA-25 exempt must carry a \_\_\_\_\_ on the label.

a) EPA warning

**b) Signal Word**

c) company logo

d) poison control number

46) e Child Hazard Warning

47) o Signal Word

48) n Statement of Practical Treatment

49) q Hazard to Humans and Domestic Animals

50) m Personal Protective Equipment (PPE)

51) p Environmental Hazards

52) j Use Classification

53) k Brand (trade) name

54) a Ingredient Statement

55) f Net Contents

56) i EPA Registration Number

57) h EPA establishment number

58) c Name and Address of the Manufacturer

59) d Formulation

60) l Limited warranty and disclaimer

61) g Directions for use

62) b Storage and Disposal

a) Fipronil: 5-amino-1-(2,6-dichloro-4-(trifluoromethyl) phenyl)-4-((1,R,S)-(trifluoromethyl)sulfinyl) -1-H-pyrazole-3-carbonitrile . . . . 9.1%

b) this section often outlines temperature requirements for pesticides

c) Enables consumers to know who made and sold the product

d) WP, SC, D, or EC are examples of this

e) KEEP OUT OF THE REACH OF CHILDREN

f) This can be expressed in pounds, ounces, gallons, quarts, milligrams or milliliters.

g) This part begins with the statement "It is a violation of Federal Law to use this pesticide in a manner that is inconsistent with its labeling" and is the bulk of the pesticide label, outlining how the product should be used.

h) should problems with a product or a batch of product occur, this number identifies the original facility the product originated from

i) This certifies the EPA has approved formulation of the pesticide

j) Pesticides classified as general use or restricted use

k) Termidor, Cyzmic, Cyanara, Temprid, Tempo

l) manufacturer's assurance that the chemical in the bottle conforms to the chemical description on the label

m) specific instructions concerning the type of clothing that must be worn

n) For more toxic pesticides this section provides instructions to medical personnel should a poisoning occur. In less toxic chemicals it contains first aid instructions.

o) DANGER, WARNING, OR CAUTION

p) potential hazards and precautions needed to avoid damage to non-target species and the environment.

q) This part of the label contains specific hazards and routes of exposure to humans and domestic animals that should be avoided.

63) [**Toxicity**] is the degree to which a substance is harmful or poisonous.

64) \_\_\_\_\_ refers to the toxic response of a single dose or single exposure event of a pesticide.

a) Individual Toxicity

**b) Acute Toxicity**

c) Independent Toxicity

d) Epidermal Toxicity

e) Chronic Toxicity

65) \_\_\_\_\_ Toxicity refers to the repeated exposure of smaller doses over time of a pesticide.

**a) Chronic**

b) Repetitive

c) Long Term

d) Gradual

66) The LD50 rating is the:

**a) dosage amount required of a pesticide to kill 50% a test population within a stated observation period.**

b) dosage required to fill a Light Duty 50 Gallon spray rig.

c) dosage amount required to kill 50 insects within a pest population

d) a rap group from the Hip Hop Golden Years of the 90's.

e) Lateral Dynamic label for 50 milligrams of testing material

67) What are the 3 modes of absorption:

a) Oral, Anal, Occular

b) Oral, Dermal, Epidural

**c) Oral, Inhalation, Dermal**

d) Inhalation, Oral, Occular

e) Dental, Oral, and Epidural

- 68) The cause of 95% of all pesticide poisoning.
- a) Oral
  - b) Dermal**
  - c) Epidural
  - d) Inhalation
- 69) It is legal to store pesticides in an emptied food container (i.e. a coke bottle) as long as the food label has been removed.
- a) True
  - b) False**
- 70) The physical movement of spray particles from a target site location to a non-target site location is called:
- a) wind
  - b) pesticide drift**
  - c) pesticide run-off and translocation
  - d) pesticide transmigration
- 71) Pesticides should always be mixed:
- a) outdoors or in a well-ventilated area.**
  - b) with metal or plastic mixers, never wood or fiberglass.
  - c) to the beat of a Top 40 song in order to maintain consistency of the mixture.
  - d) outdoors only
  - e) only in an air-conditioned or climate controlled environment.
  - f) only in an EPA approved facility
- 72) A good example of "dry absorbent material" to clean up a pesticide spill would be [**kitty litter**].
- 73) The first step to cleaning up a pesticide spill is preventing it in the first place.
- a) True**
  - b) False

- 74) If you do experience a pesticide spill you should try and accomplish the following steps in the following order
- a) Contain the spill, contact your supervisor, report the spill to the Structural Pest Control Board
  - b) Control the spill, contain the spill, clean-up the spill**
  - c) Clean-up the spill, call the County Agricultural Commissioner, report the spill to the Structural Pest Control Board
  - d) Control the spill, contain the spill, wait for assistance to arrive, allow HAZ-MAT team to clean up spill
- 75) You must notify the Structural Pest Control Board of ANY pesticide spill.
- a) True
  - b) False**
- 76) If you experience a pesticide spill of a liquid formulation you can wash it down with water, as long as it is distilled water.
- a) True
  - b) False**
- 77) After placing absorbent material on a liquid pesticide spill, and collecting the absorbent material with proper PPE into a heavy duty trash bag for disposal, the area should be washed with
- a) heavy duty detergent or bleach because bleach will neutralize most organophosphates (Diazinon, Malathion, Catalyst, etc.)**
  - b) heavy duty reverse-osmosis water because the osmosis will reverse the effects of the pesticide
  - c) liquid drain cleaner because the acid will destroy the pesticide compounds (Emulsifiable Concentrates, Wettable Powders))
  - d) motor oil because motor oil viscosity aids in absorbing pesticide particles that may have been missed by the absorbent material
- 78) When cleaning a pesticide spill you should use
- a) absorbent material such a cat litter and a large wet-dry vacuum system equipped with a HEPA filtration system
  - b) absorbent material such as peat moss, kitty litter, newspapers, or paper towels and as LITTLE water as possible**
  - c) absorbent material such as peat moss, kitty litter, newspapers, or paper towels and as MUCH water as possible
  - d) absorbent material such as cat litter and a large wet-dry vacuum system equipped with a NIOSH approved reverse osmosis system

- 79) The most dangerous stage of a pesticide is
- a) research and development of the pesticide in an EPA approved facility
  - b) transportation of the pesticide
  - c) mixing and loading of the pesticide into application equipment**
  - d) application of pesticides into target area(s)
- 80) It is ok to mix pesticides above eye level as long as you are familiar with the equipment.
- a) True
  - b) False**
- 81) It is ok to use your hand to mix pesticides or retrieve something valuable dropped into a mixing tank as long as you rinse off afterwards.
- a) True
  - b) False**
- 82) STEP ONE of first aid for pesticide poisoning is to CALL and AMBULANCE or DOCTOR IMMEDIATELY
- a) True
  - b) False**
- 83) First aid for dermal (skin) poisoning is
- a) drench skin and clothing with water with shower, hose, faucet, bucket, water container or a large pond or body of water.
  - b) remove clothing if necessary
  - c) cleanse skin and hair with soap and water or heavy duty detergents if available
  - d) wrap in dry blanket or fresh clothing
  - e) all of the above.**
- 84) First Aid for pesticide poisoning in the eye includes rinsing the eye for 15 minutes with MEDICATED water.
- a) True
  - b) False**
- 85) First Aid for inhalation pesticide poisoning includes not going after the victim in an enclosed space without an air supplied [**respirator**], carrying the victim (do not let him or her walk), loosening tight [**clothing**], application of CPR if breathing has stopped or is [**irregular**], keeping the victim [**quiet**], and protecting his [**head**] from injury if convulsing.

- 86) In the case of swallowed poison generally the most important question in first aid is whether to induce vomiting or not. This decision must be made QUICKLY and ACCURATELY... the victim's life depends on this. Generally, inducing vomiting will be required EXCEPT when \_\_\_\_\_:
- a) the victim is unconscious but not convulsing and the pesticide tastes bad enough to trigger the gag reflex
  - b) the victim ate a large meal recently and the food will absorb the pesticide
  - c) the victim is unconscious or convulsing or the pesticide swallowed was corrosive**
  - d) the victim is on prescription medication
  - e) the victim does not want to induce vomiting and the label is not present and simply wants to go home.
- 87) A corrosive pesticide like dinoseb or a strong acid or alkali may cause throat burns and mouth sores in its victims if swallowed but should NOT be vomited up because the damage done as much coming up as they did going down.
- a) True**
  - b) False
- 88) \_\_\_\_\_ are in charge of training and supervising applicators to ensure the proper disposal of pesticides.
- a) Branch Managers
  - b) Supervisors
  - c) Employers**
  - d) County Agricultural Commissioners
  - e) Structural Pest Control Board Members
  - f) Licensed Operators and applicators
- 89) Employers must ensure their employees have access to Emergency Medical care. For this reason, the \_\_\_\_\_ must be posted in a visible area on the vehicles used by employees.
- a) Name, Address, and internet URL of the closest emergency care facility
  - b) Name, URL, and phone number of poison control and animal control in case of medical emergency or domestic animal emergency
  - c) Name and address of local ambulance firm in case of medical transportation needs
  - d) Name, Address, and Telephone Number of the closest emergency medical care facility(s).**
- 90) It is required by law that all pest control services performed by a licensed company other than **fumigations** be recorded and the company must maintain records of these services. These service records must contain the necessary information about the service as defined in the structural pest control act.

- 91) The Structural Pest Control Act requires the following information be present on the service record of any service other than fumigations:
- a) Name of the service location owner as it appears on the title, target pests, date of service, common name(s) of pesticides used, and the temperature of the day of application
  - b) *The address of the property treated, the name, telephone number, and address of the company treating the property, the name of the owner or the owner's agent, a description of the area(s) treated, and the name of the target pest(s) to be treated, the name of the pesticide used with its active ingredients and EPA Registration number, in addition to the name (and license number) of the applicator and the date of treatment***
  - c) The address of the property treated, the name of the owner or the owner's agent, a description of the area(s) treated, and the name of the target pest(s) to be treated, the name of the pesticide used with its active ingredients and EPA Registration number, in addition to the name (and license number) of the applicator
  - d) The dress of the service location, the time and date of treatment and the name of the applicator and the pesticide used.
- 92) It is required that an employer maintain a record of pesticides used by employees. This record must include recent **MSDS or SDS sheets** for each pesticide and their corresponding labels.
- 93) MSDS sheet stands for Maximum Safety and Data Standards sheet.
- a) True
  - b) False**
- 94) California law requires pesticide applicators wear a minimum of the following personal protective equipment:
- a) *Long sleeve shirts, pants, chemical resistant boots, 14 mil gloves, and ANSI approved eye-protection with a respirator is the label requires it or the pesticide will be sprayed in an enclosed area or above the head.***
  - b) Long sleeved shirt, short sleeved shirt in over 100 degree weather to avoid heat exhaustion, chemical resistant boots, 14 mil gloves, ANSI approved eye protection and a respirator if the label requires it.
  - c) disposable Tyvex suits
  - d) reusable rubberized personal protective suits.
- 95) Every person wearing a respirator must be fitted for that respirator before beginning a service.
- a) True**
  - b) False
- 96) A positive pressure test must be performed before each use of a respirator.
- a) True**
  - b) False

97) A positive pressure test is the only way to correctly identify a properly sealed respirator and test its efficiency and seal.

a) True

**b) False**

98) These factors may affect the efficiency and effectiveness of a respirator:

a) facial hair

b) cleanliness

c) length of time cartridges have been used

d) size of respirator

**e) all of the above**

99) Chemical Cartridge Respirators usually protect against all but the most harmful vapors and usually include an active ingredient in the cartridge such as [**activated charcoal**]. They last an average of 8 hours each cartridge.

100) Powered Air purifier systems are easier to breathe through because an air supply forces positively pressurized [**air**] into a hood or facemask assembly and does not require "sucking" energy on behalf of the technician.

101) Protective eyewear must be \_\_\_\_\_ approved.

a) FIFRA-25 (Exempt or non exempt)

b) EPA (EPA Reg # 279-334)

**c) American National Standard Institute (ANSI Z87.1-2010)**

d) Cal-OSHA

e) Structural Pest Control Board

f) County Agricultural Commissioner

102) Hand protection must include at least [**14**] millimeter thick gloves, unless the activity performed requires more dexterity, in which case, thinner, unlined gloves are permissible.

103) All gloves used in pest control must be made of rubber, neoprene, or other chemical-resistant materials and may be permitted to have a comfort lining of wool, cotton, or any other comfortable material less than 14 millimeters thick.

a) True

**b) False**

104) It is ok to wear leather gloves for increased grip of tools and equipment on top of unlined chemical resistant 14 millimeter or more gloves if the technician desires.

**a) True**

b) False

- 105) Gloves should be long enough to cover
- a) ***the entire hand and part of the forearm***
  - b) the entire hand and the forearm up to the elbow
  - c) the entire hand except fingerless gloves may be used for the calibration of spray equipment
  - d) the left hand, much like Michael Jackson did in the 90's
- 106) A service technician is required to always have an additional pair of gloves on hand.
- a) ***True***
  - b) False
- 107) The pant leg must be worn on the outside of the boot unless cleanly tucked into the boot and laced tightly.
- a) True
  - b) ***False***
- 108) Pest control uniforms may be laundered
- a) only in an EPA approved facility
  - b) ***with family laundry as long as they are not contaminated with pesticides***
  - c) only by themselves and NEVER with family laundry
  - d) by dry clean facilities only with scentless and perfume less solutions
  - e) by hand, in the river, singing labor songs or whistling dixie
- 109) All clothing worn while handling or applying pesticides may be re-used a maximum of 3 times before washing.
- a) True
  - b) ***False***
- 110) Major components of power-sprayer equipment include:
- a) ***tanks, pumps, strainers, agitation, and pressure regulation***
  - b) tanks, pumps, strainers, poppers, shakers, and pressure regulators
  - c) tanks with company logos and electric recoil hoses
  - d) all of the above
- 111) Increased pressure in the tank also increases the possibility of spray [***drift***].
- 112) If wind increases, to avoid drift, either [***lower*** the pressure in the tank to decrease droplet size or change the tip of the application equipment to [***increase*** droplet size. Larger droplets are less likely to be blown into non-target-site locations.

- 113) Strainers prevent foreign debris from entering the spray equipment but also serve as a mandatory \_\_\_\_\_ between the hose bringing water into the system's tank and the hose itself. This is necessary to prevent pesticide from being sucked back into the hose once water pressure is reversed when the hose is turned off.
- a) conduit
  - b) supplemental filter
  - c) air gap**
  - d) connection
- 114) Which dust applicator is best suited for delivery of small amounts of dust into cracks and crevices of a treatment site?
- a) getz duster**
  - b) compressed air duster
  - c) rotary duster
  - d) none of the above
- 115) \_\_\_\_\_ apply pesticides when heavy rain is likely
- a) It is not as effective but is legal to
  - b) It is not recommended but is legal
  - c) It is illegal to**
  - d) None of the above
- 116) Use a brush or [**soft copper wire**] to clean out clogged nozzles.
- 117) Before treating a home by fogging, fish in a fish tank should be \_\_\_\_\_ and pilot lights should be \_\_\_\_\_.
- a) removed, turned off**
  - b) sedated, turned off
  - c) removed, covered
  - d) covered, covered
- 118) When treating warehouses, a ULV machine may be used. ULV stands for
- a) ultra-violet light variator
  - b) ultra low volume**
  - c) ultra low viscosity
  - d) un-pressurized low viscosity
- 119) Pesticide storage area(s) must have a sign reading "Danger - Pesticides".
- a) True**
  - b) False

- 120) Pesticide Storage facilities must be labeled in order to:
- a) alert parents of minors or children of the presence of pesticides
  - b) alert minors and children not to play in the area
  - c) alert employees of the presence of pesticides
  - d) alert firefighters of the presence of pesticides**
- 121) Pesticides must be transported in properly sealed, closed containers, in an [**upright**] position.
- 122) You may transport unopened pesticide bottles or containers in the cab of a service vehicle.
- a) True
  - b) False**
- 123) Pesticides must be stored in a service vehicle in a lockable container \_\_\_\_\_ the driver and the driver's cab.
- a) within arm's length reach of
  - b) separate from**
  - c) within 5 feet of
  - d) none of the above
- 124) Every service vehicle should have an emergency spill kit and an extra set of PPE in case of an emergency during transportation of a pesticide.
- a) True**
  - b) False
- 125) Never transport pesticides with
- a) explosive devices or explosive vapors
  - b) food, clothing, or anything meant to be eaten. The risk of contamination is too high.**
  - c) registered hazardous materials
  - d) none of the above
- 126) You are responsible if curious children accidentally come in contact with pesticides in the bed of your truck, even if you were not present and the children had to go out of their way to get them.
- a) True**
  - b) False

- 127) Pesticides must be stored in the service vehicle in a
- a) waterproof box
  - b) locked box**
  - c) weather-proof box
  - d) plastic, fiberglass, or metal box. Wooden boxes are unacceptable.
- 128) A pesticide is any chemical meant to
- a) prevent, destroy, repel or mitigate a pest population**
  - b) kill a pest population
  - c) destroy animal life
  - d) smell bad and annoy environmentalists
- 129) Pesticides may include
- a) molluscicides
  - b) fungicides
  - c) herbicides
  - d) insecticides
  - e) all of the above.**
- 130) Emulsifiable concentrates include
- a) pesticides that become a true solution in water and are sprayed as a true solution in their final aqueous state.
  - b) any pesticide designed to be sprayed as an aqueous solution.
  - c) pesticides suspended in an emulsifying compound that, when mixed with water, suspends small amounts of pesticide in oily droplets. This suspension lasts about a day.**
  - d) any oil-based pesticide. Oil based emulsion is the most effective form of pesticide.
- 131) Transport WP is a common pesticide used for spiders. The WP stands for
- a) Whittaker - Price, the manufacturer of the pesticide
  - b) White Powder, the physical description of the pesticide in the pesticide container
  - c) Wettable Powder, the type of pesticide formulation**
  - d) Wind-Resistant Polymer, a specialized pesticide that can be used on windy days because the pesticide droplets are suspended in a heavy polymer that makes the droplets heavier, thus less likely to drift onto off-site locations

- 132) In general, \_\_\_\_\_ formulations of pesticides are the most effective and longest lasting.
- a) Oil-based
  - b) Water-based
  - c) Dust**
  - d) Granule
- 133) Dust formulations are usually dusts ranging from \_\_\_\_\_ to \_\_\_\_\_ microns.
- a) 1-4
  - b) 5-50
  - c) 50-100**
  - d) 100-500
- 134) Common ready to use pesticides include
- a) aerosols, gels, granules, and dusts**
  - b) emulsifiable concentrates
  - c) wettable powders and organophosphates
  - d) none of the above
- 135) [**Aerosol**] pesticides must be pressurized in a can with a volatile, petroleum solvent. When released from the can into a treatment area, the solvent dries, leaving micro-droplets of pesticide on the treatment site. These pesticides are generally used in indoor treatments and have a generally [**low**] toxicity and short residual.
- 136) A main advantage of baits is that when used properly, there is virtually no release of pesticide into the environment.
- a) True**
  - b) False
- 137) 1 gallon equals [**4**] quarts or 8 pints or [**128**] ounces
- 138) One pound equals
- a) 16 ounces**
  - b) 32 ounces
  - c) 64 ounces
  - d) 128 ounces

139) One cup equals

- a) 4 ounces
- b) 8 ounces**
- c) 12 ounces
- d) 16 ounces

140) 1 liter equals [**1000**] milliliters.

141) 1 gallon equals

- a) 3.8 liters**
- b) 8.3 liters
- c) 8.35 lbs
- d) none of the above

142) One gallon equals

- a) 8.35 lbs**
- b) 1,000 milliliters
- c) 8 ounces
- d) 24 pints

143) The two types of termites that cause damage to structures in southern California are the \_\_\_\_\_ and \_\_\_\_\_ termite.

- a) subterranean, damp wood
- b) dry wood, formosan
- c) formosan, subterranean
- d) subterranean, dry wood**
- e) all of the above

144) The \_\_\_\_\_ is most common along humid, coastal regions.

- a) subterranean termite
- b) formosan termite
- c) dampwood termite
- d) dry-wood termite**

145) Dry wood termites spend their entire lives in the wood they infest. They are born in the wood, eat the wood, excavate the wood, and ultimately die within the wood. They never contact the soil.

- a) True**
- b) False

- 146) Dry wood termites need a moisture source outside of the wood they infest to hydrate the colony.
- a) True
  - b) False**
- 147) Subterranean termites live in large colonies
- a) above ground
  - b) below ground, below the frost line**
  - c) below ground, below the water line
  - d) near large bodies of water
- 148) Subterranean termites get their hydration from
- a) microscopic water-bottles
  - b) the colony water-cooler where they gossip about the bachelor and the Kardashians.
  - c) each other in a process called trophylaxus
  - d) the soil itself, that's why they are subterranean termites**
- 149) subterranean termites preserve the moisture barrier between them and the environmental air outside via
- a) mud tubes**
  - b) protective frass tunnels made from wood pellets and their saliva
  - c) coming above ground only at night
  - d) none of the above
- 150) Dry wood termite damage is easy to identify as only dry wood termites leave pellets or fecal material in piles in and around their galleries.
- a) True**
  - b) False
- 151) Only subterranean termites create mud tubes.
- a) True**
  - b) False

- 152) Which types of termites create "alates", or "winged" termites (also called "reproductives".)
- a) **subterranean, formosan, damp wood, and dry wood termites all do... that's why identification of damage is so important to determine species.**
  - b) Only dry wood termites. If you find alates, you know you have a dry wood termite infestation.
  - c) Only subterranean termites produce alates... if you find winged termites you have a subterranean termite infestation.
  - d) None of the above.
- 153) Winged termites, or "plates" are often confused by customers for
- a) bed-bugs
  - b) fleas
  - c) gnats
  - d) **winged ants**
- 154) How can a technician or field representative tell the difference between winged ants and termite alates.
- a) **winged ants have a thin thorax and wings shorter than their bodies**
  - b) winged ants have a dark shell and large wings
  - c) winged ants are dark black while termite alates are brown
  - d) winged ants are big while termite alates are small
  - e) termite alates have wings shorter than their bodies
- 155) What is another word for termite reproductives or "alates"
- a) winged termites
  - b) gnats
  - c) **swarmers**
  - d) pterodactyl termites
- 156) If subterranean termites have enough food and moisture above water they may actually develop a colony above ground in something called a termite \_\_\_\_\_.
- a) mega-colony
  - b) **carton**
  - c) casket
  - d) coconut
- 157) Dry wood termites get the moisture they need from humid air.
- a) **True**
  - b) False

- 158) Subterranean termites in a foundation can be treated by treating the soil directly with an EPA registered soil termiticide such as Termidor SC or Taurus SC. A trench is dug around the area of infestation and Termidor SC is applied in a solution to the soil to create a chemical barrier before the trench is re-filled with the original soil. This process is called
- a) trenching and drenching because the more pesticide the better
  - b) trenching and drenching because soil termiticide is applied until the soil is drenched
  - c) treating and beating because the termites take a beating
  - d) trenching and treating or trenching and rodding**
- 159) Subterranean termites separated from their colony by the chemical barrier created by trenching and treating generally die within \_\_\_\_\_ due to \_\_\_\_\_.
- a) 3 days, boredom
  - b) 4 days, poisoning
  - c) 5 days, nerve damage
  - d) 3 days, dehydration**
- 160) When the subterranean termite colony is below a slab foundation and cannot be reached without treating the soil directly below the foundation, a hammer drill may be used to drill a hole THROUGH the foundation, through which an injection rod may be inserted and pesticide may be applied. This process is called
- a) foundational trenching
  - b) sub-slab-injection**
  - c) slab-injection and rodding
  - d) noisy mayhem
- 161) Generally, a \_\_\_\_\_ masonry bit is used in the hammer drill to drill sub-slab injector holes.
- a) 1/4 inch
  - b) 1/2 inch**
  - c) 1/8 inch
  - d) 3/4 inch
- 162) Carpenter ants are generally very \_\_\_\_\_ in size, measuring up to \_\_\_\_\_ in length.
- a) small, 1/8 inch
  - b) small, 1/4 inch
  - c) large, 1/2 inch**
  - d) large 3/4 inch
- 163) [**Carpenter ants**] do not actually eat the wood but burrow through the wood to create area(s) for their young and their colony.

164) Cockroaches encounter food primarily through their sense of

- a) sight
- b) smell**
- c) touch
- d) none of the above

165) Cockroaches generally hide in cracks and [**crevices**].

166) All cockroaches are \_\_\_\_\_ and generally prefer starchy foods such as cereals, meat products, or sugary and sweetened substances. A primary source of food and harborage through which restaurants and homes will get cockroaches is through the \_\_\_\_\_ that holds cardboard boxes together.

- a) omnivorous, glue**
- b) carnivorous, staples
- c) omnivorous, staples
- d) herbivorous, glue

167) Humans have \_\_\_\_\_. Cockroaches have \_\_\_\_\_.

- a) endo-skeletons, exo-skeletons**
- b) legs, wings
- c) problems, more problems
- d) exo-skeletons, endo-skeletons

168) The exo-skeleton of a cockroach is made up of [**chitin**].

169) A [**dessicant**] pesticide scratches this chitin layer of the exo-skeleton, dehydrating the insect to death.

170) Ants belong to the order

- a) disthoptera
- b) hymenoptera**
- c) hymlic
- d) hi-my-brotha

171) The weight of ants on earth is greater than the weight of humans on earth.

- a) True**
- b) False

- 172) The success of the ant worldwide is due to its \_\_\_\_\_ and its ability to \_\_\_\_\_ environment.
- a) hard work ethic, hug trees and get arrested on behalf of
  - b) independent nature, adapt to a changing
  - c) social and communal nature, change its
  - d) social and communal nature, adapt to a changing**
- 173) The labor of an ant colony is divided up into castes.
- a) True**
  - b) False
- 174) Ants do not have a complete life cycle.
- a) True
  - b) False**
- 175) The narrow connection between the ant's thorax and its abdomen can have one or two "nodes" and is called the [**narrow pedicel**].
- 176) Ants will have narrow divisions between their head, thorax, and abdomen, while termites have a uniform width that gives them a more "cigar-like" appearance.
- a) True**
  - b) False
- 177) A large difference between termite antennae and ant antennae visible with the naked eye is
- a) termite antennae are beaded and uniform in width, while ants are elbowed and vary in width**
  - b) termite antennae is elbowed, while ant antennae is straight
  - c) termite antennae are brown, while ant antennae are generally black
  - d) termites can listen to AM radio with their antennae while ants can pick up FM.
- 178) An ant primarily feels with its antennae. The antennae are comprised of \_\_\_\_\_ and \_\_\_\_\_.
- a) elbows and joints
  - b) protozoa and mitochondria
  - c) abdomen and thorax
  - d) scape and funiculus**
- 179) Ants communicate through their antennae with chemicals called [**pheromones**].

- 180) An ant losing its antennae is like a human losing its nose, ears, eyes, and mouth.  
a) **True**  
b) False
- 181) Ants have lateral [**compound**] eyes, which can sense light, dark, and movement, but are considered inferior to human eyes.
- 182) The queens, males, and workers of some species of ant have simple eyes called \_\_\_\_\_ meant for seeing just light and dark.  
a) ovrelli  
b) **oscelli**  
c) tavelli  
d) ocularelli
- 183) Fleas belong to the order  
a) **siphonaptera because they are blood-sucking**  
b) vampiraphiria because they are blood-sucking  
c) dipthera because they cause diphtheria  
d) hemenoptera because they are social
- 184) Fleas mate on the host animal and before the female can lay fertile eggs she needs a blood meal.  
a) **True**  
b) False
- 185) Most fleas are in a larval stage for 1-2 weeks in warm weather to 1-2 months in cold weather. When disturbed, they will hatch early because many species are sensitive to [**vibration**]. This is why repetitive vacuuming as part of a flea control program is so important.
- 186) The \_\_\_\_\_ was the principle spreader of the bubonic plague through Europe.  
a) **oriental rat flea**  
b) oriental dog flea  
c) southern dog flea  
d) northern cat flea
- 187) The most common fleas associated with man are the \_\_\_\_\_ and \_\_\_\_\_ flea(s).  
a) **cat, dog**  
b) shuck, jive  
c) oriental, northern  
d) none of the above

- 188) The human flea (*Pulex Irritans*.) also feeds on dogs, cats, ground squirrels and domestic animals besides humans.
- a) **True**
  - b) False
- 189) [**Household Pests**] are these pests, other than wood destroying organisms, that invade a home and include, but are not limited to, termites, rodents, insects.
- 190) Regulation of pest control companies shall be performed by the
- a) County Agricultural Commissioner
  - b) County Health Department
  - c) City Health Inspector
  - d) Structural Pest Control Board
- 191) The regulations enforced by the County Agricultural Commissioner can be found in the [**California Code of Regulations**].
- 192) Treatment of pests invading or occupying structures is strictly \_\_\_\_\_ pest control. The treatment of outside pests on plants and orchard pests is strictly \_\_\_\_\_ pest control. They require separate licenses.
- a) structural, wildland
  - b) structural, non-structural
  - c) **structural, agricultural**
  - d) non-structural, agricultural
- 193) Any pest control application to plants is strictly agricultural, except \_\_\_\_\_ applications relevant to structural pest control applications.
- a) accidental
  - b) **incidental**
  - c) accidental
  - d) oriental
- 194) Pesticide applications to indoor plants is considered [**agricultural**] pest control.
- 195) Removal of live bees, if done for hire \_\_\_\_\_ require a license.
- a) DOES NOT
  - b) DOES
  - c) MAY POSSIBLY

- 196) e fungicides
- 197) g molluscicides
- 198) a herbicides
- 199) j fumigants
- 200) m microbial pesticides
- 201) c nematicides
- 202) k ovacides
- 203) l forams
- 204) f repellents
- 205) d rodenticides
- 206) b desiccants
- 207) h defoliants
- 208) i Insect Growth Regulator
- a) kill plants
- b) kill through dehydration of insects
- c) kill nematodes or worm-like creatures that eat plant roots
- d) kill rats and mice and gophers (rodents)
- e) Kill fungus or fungi
- f) repel pests, including insect and birds
- g) kill snails and slugs
- h) cause leaves or foliage to drop from a plant... usually for harvest
- i) disrupt pupal stage to adult stage in an insect life cycle, resulting in death
- j) produce gas or vapors intended to kill pests in soil or a structure
- k) kills eggs of insects or mites
- l) biochemicals meant to disrupt the reproduction of insects
- m) microorganisms that kill, mitigate, or compete with pests in soil or other area(s).

209) According to EPA law, a [**device**] is any instrument or contrivance (other than a firearm), intended for trapping, destroying, repelling, or mitigating any pest. According to EPA law, this could include a mousetrap.

210) \_\_\_\_\_ as well as certain low-risk ingredients and compounds such as peppermint and garlic oil are exempted from EPA regulation (FIFRA-25 exempt).

**a) Biological Control Agents**

b) Bio-Chemical Agents

c) Big-Pharma Pharmaceuticals

211) Risk equals

**a) toxicity x exposure**

b) toxicity x dilution rate

c) acute toxicity rating x exposure

d) non of the above

212) [**Mutagenicity**] is a mutation or genetic change in a cell.

213) \_\_\_\_\_ is the production of cancer cells. All chemicals that will produce cancers are called \_\_\_\_\_.

- a) **Carcinogenicity, Carcinogens**
- b) Cancerogenicity, Cancer-Causing Agents
- c) Carcinogens, Cigarettes
- d) Cancer-Causing Mutation, Mutants

214) Teratogenicity is the causing of abnormalities in the developing fetus.

- a) **True**
- b) False

215) c MILD symptoms of pesticide poisoning

- a) constricted pupils, muscle cramps
- b) difficulty breathing

216) a MODERATE symptoms of pesticide poisoning

- c) dizziness, profuse sweating, excessive salivation, throwing up

217) b SEVER or SERIOUS symptoms of pesticide poisoning

218) According to the LD-50 rating the larger the number the \_\_\_\_\_.

- a) more toxic the pesticide
- b) **less toxic the pesticide**
- c) the louder the bugs when they scream
- d) the safer the product when ingested accidentally.

219) According to law, you should ready the pesticide label

- a) Once a year, before January 30th, to remain familiar with pesticide law
- b) Once a week
- c) As needed to stay familiar with pesticides and their modes of action
- d) **before EVERY time you are going to use it**

220) c Amount needed to kill a person with DANGER pesticide

- a) an ounce to more than a pint
- b) a teaspoon to a tablespoon

221) b Amount needed to kill a person with WARNING pesticide

- c) a taste to a teaspoon

222) a Amount Needed to kill a person with CAUTION pesticide

223) Leftover mixtures and pesticide may be disposed of at an [**approved waste disposal facility**].

224) Containers of pesticide concentrate, once emptied should be \_\_\_\_\_.

- a) collected and distributed to handicapped, minority children
- b) rinsed and disposed of in a sanitary landfill
- c) double-rinsed and disposed of in a sanitary landfill
- d) triple-rinsed and disposed of in a sanitary landfill**

225) The amount of pesticide applied to a job may always be [**decreased**] as long as the label does not prohibit it.

226) The concentration of a pesticide mixture may be diluted to a higher volume of final mixture than the label recommends as long as

- a) the applicator mixes the mixture with distilled or reverse osmosis water
- b) the technician blesses the water, making it holy
- c) the total amount of active ingredient per acre is not changed**
- d) the mixture smells better

227) A pesticide may be applied \_\_\_\_\_ than the label recommends.

- a) less often**
- b) more often
- c) up to twice as often
- d) up to 3 times as frequently

228) A method of pesticide mixture application not listed on the label may be employed by the technician as long as it is not considered [**dangerous**] and the final mixture volumes and percentages are maintained.

229) It is permitted to mix pesticides and other fungicides/herbicides in a tank as long as the \_\_\_\_\_ allows it and it is not prohibited. It is illegal to mix non-herbicide/pesticide agents (sugar or vegetable oil) with pesticides.

- a) manufacturer
- b) label**
- c) MSDS Sheet
- d) boss

230) EXCEPTION TO THE RULE: Section 1991(b) of the California Code of Regulations PROHIBITS applying mixtures of soil termite to pre-construction sites at a rate lower than the label indicates.

- a) True**
- b) False

- 231) The most popular and frequent form of pesticide formulation is the \_\_\_\_\_ used in about 75% of all pesticide applications.
- a) granule
  - b) dust
  - c) spray**
  - d) gel
- 232) [**Tracking Powder**] is a powder that may not have rodenticidal or insecticidal properties in itself but can be used to detect the presence of insects or rodents.
- 233) Tanks for spray rigs and application equipment should be made of
- a) plastic, fiberglass, aluminum, stainless steel, or a steel with an interior or galvanized lining and contain a hatch to avoid spillage.**
  - b) glass, aluminum, stainless steel, or really hard wood.
  - c) plastic, fiberglass, clay, aluminum, galvanized or stainless steel, with a hatch to avoid spillage
  - d) any material. This is not heavily regulated in California.
- 234) In Los Angeles County, all spray rigs and tanks must be equipped with an air [**gap separation device**] permanently affixed to the equipment.
- 235) Agitators are devices that keep the mixture of a pesticide agitated or moving inside of a spray rig or tank. Agitator options include \_\_\_\_\_ or \_\_\_\_\_ agitators.
- a) jet, mechanical**
  - b) mechanical or electrical
  - c) siphon pump, or electrical pump
  - d) none of the above
- 236) A [**check valve**] prevents mixture from entering the pumping unit.
- 237) This type of duster is different than compressed air, getz, and rotary dusters and is good for cockroach treatments of electrical boxes or appliances where liquid treatments are impossible.
- a) Dupont Duster
  - b) Crop Duster
  - c) Bulb Duster**
  - d) Plymouth Duster
- 238) Sprayers and spray equipment should be cleaned [**every day**] after [**each day's work**].

239) There are \_\_\_\_\_ square feet in an acre.

- a) **43,560**
- b) 48,254
- c) 100,000
- d) 124,000

240) One mile per hour is 88 feet per minute.

- a) **True**
- b) False

241) 3 teaspoons equal

- a) one cup
- b) **one tablespoon**
- c) one pint
- d) one gallon

242) 2 tablespoons equals

- a) **one fluid ounce or 6 teaspoons**
- b) one pint
- c) one quart
- d) none of the above

243) One cup equals

- a) 8 tablespoons
- b) **16 tablespoons**
- c) 32 tablespoons
- d) 64 tablespoons

244) 4 quarts equal

- a) **one gallon**
- b) one pint
- c) one liter

245) 16 ounces equals one pound

- a) **True**
- b) False

246) Pesticide storage area(s) must always be kept [**locked**].

- 247) Every piece of spray equipment should contain an \_\_\_\_\_.
- a) **anti-siphoning device**
  - b) automatic pressure regulator
  - c) auxiliary power source
  - d) alarm
- 248) You can use your mouth to siphon or clean spray equipment as long as you do not suspect illness will result.
- a) True
  - b) **False**
- 249) PPE should be worn cleaning equipment just the same as if spraying with the equipment.
- a) **True**
  - b) False
- 250) It is recommended but not required by law to use NIOSH approved respirators.
- a) True
  - b) **False**
- 251) Before applying a pesticide, any registered Branch 2 or 3 company must post in a conspicuous location or submit in writing a \_\_\_\_\_.
- a) **list of pesticide common names and active ingredients proposed to be used.**
  - b) price sheet of their services.
  - c) racial demographics of their employees and administrative staff
  - d) none of the above.
- 252) If a customer terminates service that includes rodent bait stations, they can keep them and the company need not retrieve them.
- a) True
  - b) **False**
- 253) All pest control equipment shall be labeled "Licensed Pest Control Operator" or with similar markings with lettering large enough to be seen from \_\_\_\_\_ away
- a) **25 feet**
  - b) 25 meters
  - c) 50 feet
  - d) 50 meters

- 254) All pesticide storage facilities and lockers should be labeled with signage at every angle or "probable approach" with a sign that can be read from at least 25 feet away.
- a) **True**
  - b) False
- 255) All pesticide storage facilities and lockers must be labeled with signs that can be read from at least **25** feet away that read DANGER - POISON STORAGE - ALL UNAUTHORIZED PERSON KEEP OUT - [**KEEP DOOR LOCKED WHEN NOT IN USE**].
- 256) All spray devices (including back-packs and hand-held sprayers) must be labeled with the company name and address as well as the identity of the poison or product in the container and its accompanying [**signal word**].
- 257) To begin triple rinsing an empty pesticide container less than 5 gallons large, begin by filling it \_\_\_\_\_ full rinse-water. Pesticide containers larger than 5 gallons only need be filled \_\_\_\_\_ full with rinse water to begin triple-rinsing.
- a) 1/8 full, 1/4 full
  - b) 1/5 full, 1/4 full
  - c) **1/4 full, 1/5 full**
  - d) 1/10, 1/25th full
- 258) Employers need to provide coveralls to employees working consistently with a signal word of [**DANGER** or [**WARNING**]. They do not need to provide coveralls for pesticides with a signal word [**CAUTION**].
- 259) When a termite inspection is performed, the registered company has [**10 days** to submit a termite report to the Structural Pest Control Board.
- 260) The filing fee for a termite report with the Structural Pest Control Board is \_\_\_\_\_ and the fine for not submitting the report with 10 days is \_\_\_\_\_.
- a) \$2.00, \$2,000
  - b) **\$2.50, \$2,500**
  - c) \$5.00, \$5,000
  - d) None of the above
- 261) A registered Branch 3 (Termite) Company must retain record of all inspection reports and fumigations for [**3** years.
- 262) The first step of pest control is proper pest identification BEFORE treatment.
- a) **True**
  - b) False