

Pesticide Applicator Core Exam 5 Practice Tests + Cheat Sheet

250 original questions with answer explanations

Written to the federal core competency standards (40 CFR 171.103)

Core Applicator Prep · Edition: September 2026

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How to use this pack

1. Take Practice Test 1 under exam conditions: no notes, about 60-90 minutes, circle your answers.
2. Score yourself with the answer key right after the test. Most states require about 70% to pass the core.
3. For every miss, read the explanation and review that topic in your state's core manual.
4. Repeat with Tests 2-5. Your score should climb. Re-read the cheat sheet the night before and the morning of your exam.

What each test covers

Each 50-question test is weighted across the 10 federal core areas: labels (6), safety/PPE/first aid (8), environment (6), pests/IPM (4), pesticides and formulations (6), equipment and calibration (4), application methods (5), laws (5), supervising noncertified applicators (2), professionalism (2), plus pesticide math (2).

Important

Your state also tests its own laws, and usually one or more categories (for example turf and ornamental, right-of-way, or structural). A new national core manual (3rd edition, 2025) is being adopted state by state during 2026. Check which edition and supplements your state agency requires. When a label and this guide differ, the label and your state rules win.

Practice Test 1

50 questions · Circle the best answer.

1. Under FIFRA, pesticides must be registered by the EPA before they can be:
 - A. Imported for personal use only
 - B. Discussed
 - C. Researched
 - D. Sold or distributed in the United States (with limited exemptions)
2. Which nozzle type is often chosen for insecticide or fungicide sprays that need to penetrate dense foliage?
 - A. Flood nozzle
 - B. Hollow-cone nozzle
 - C. Solid stream nozzle
 - D. Off-center nozzle only
3. Rainfastness refers to:
 - A. The amount of rain needed for germination
 - B. How long before rain a product must be applied to avoid wash-off
 - C. Leaching only
 - D. Drift
4. Typical information in an application record includes:
 - A. Only the price
 - B. Product name, EPA Reg. No., amount, date, location, crop or site, and applicator
 - C. Only the customer's phone number
 - D. Only the weather
5. Which action helps prevent overlap and skips during a broadcast application?
 - A. Driving randomly
 - B. Turning off the boom mid-pass
 - C. Using marking systems or GPS guidance to maintain proper swath spacing
 - D. Increasing speed on turns
6. "Direct supervision" of a noncertified applicator using RUPs means:
 - A. The certified applicator is responsible for the use and meets federal and state requirements, such as training, instructions, and communication
 - B. Supervision only by email once a week
 - C. The certified applicator must always stand next to them
 - D. No certified applicator is involved
7. Under the 2017 certification rule, states must include which additional categories for applicators who use certain application methods?
 - A. Only right-of-way
 - B. Only turf
 - C. No additional categories
 - D. Fumigation (soil and non-soil) and aerial

8. Temperature inversions are most common:
- A. During windy afternoons
 - B. Only in winter storms
 - C. During calm, clear conditions in early morning and evening
 - D. Only at noon in summer
9. Which signal word is required on products in the moderately toxic category (oral LD50 roughly 50 to 500 mg/kg)?
- A. WARNING
 - B. CAUTION
 - C. DANGER
 - D. DANGER-POISON
10. Soil compaction and steep slopes tend to:
- A. Reduce runoff
 - B. Increase microbial activity
 - C. Stop leaching entirely
 - D. Increase runoff
11. The "Statement of Practical Treatment" or first aid section tells you:
- A. Which pests are controlled
 - B. How to calibrate
 - C. What to do if someone is exposed
 - D. How to store the product
12. A sinkhole or abandoned well near a treatment site is a concern because:
- A. It blocks drift
 - B. It can provide a direct path for pesticides to reach groundwater
 - C. It improves drainage
 - D. It has no effect
13. Which of the following can make heat-stress risk worse?
- A. Drinking water frequently
 - B. Taking rest breaks in shade
 - C. Wearing chemical-resistant suits in hot weather without breaks or water
 - D. Working in the cooler parts of the day
14. The federal law that governs disposal of hazardous wastes, including some pesticide wastes, is:
- A. FQPA
 - B. FFDCA
 - C. ESA
 - D. RCRA (Resource Conservation and Recovery Act)
15. Supplemental labeling that a product label refers to, such as a separate bulletin for a specific use:
- A. Is part of the labeling and must be followed
 - B. Applies only in Canada
 - C. Is not legally binding
 - D. Applies only to homeowners

- 16.** Protecting endangered species during pesticide use may require:
- A. Removing labels
 - B. Checking label-referenced Endangered Species Protection Bulletins for use limitations in specific areas
 - C. Nothing
 - D. Only hunting permits
- 17.** When working with your arms raised overhead, gloves should be worn:
- A. Only on one hand
 - B. Under the shirt sleeves with no cuff
 - C. Not at all
 - D. With the cuffs turned up to catch runoff, or taped at the sleeve
- 18.** A backpack sprayer's output should be calibrated by:
- A. Spraying a measured area at a steady pace and pressure and measuring the volume used
 - B. Guessing based on tank size
 - C. Counting pumps only
 - D. Asking the retailer
- 19.** Pesticide containers in transit should be carried:
- A. In a car trunk with groceries
 - B. In the passenger compartment for security
 - C. In the vehicle's cargo area, secured, away from people, food, and feed
 - D. On the roof unsecured
- 20.** Pesticide resistance can be delayed by:
- A. Spraying more often
 - B. Increasing the rate each time
 - C. Using the same product repeatedly
 - D. Rotating or mixing effective modes of action as the label allows, and using IPM
- 21.** Why is it important to use the correct nozzle for the job?
- A. Nozzle choice affects droplet size, pattern, flow rate, and drift
 - B. Only color matters
 - C. Only for aerial work
 - D. All nozzles are the same
- 22.** An insect that goes through egg, larva, pupa, and adult stages undergoes:
- A. No metamorphosis
 - B. Simple change
 - C. Gradual metamorphosis
 - D. Complete metamorphosis
- 23.** Monitoring tools for insects include:
- A. Only calendars
 - B. Only rain gauges
 - C. Sticky traps, pheromone traps, sweep nets, and visual inspection
 - D. Only pesticides

24. Chemical security measures for RUPs include:

- A. Locked storage, controlled keys, inventory records, and reporting suspicious purchases or theft
- B. Storing RUPs in open truck beds overnight
- C. Posting the lock combination
- D. Leaving storage unlocked during business hours

25. Minimum-risk pesticides exempted under FIFRA Section 25(b):

- A. Are banned
- B. Require aerial certification
- C. Are exempt from federal registration if they meet specific ingredient and labeling criteria, though states may still require registration
- D. Must be registered as RUPs

26. A label that allows use "on turf" but not "on vegetable gardens" means:

- A. Use on vegetable gardens isn't permitted
- B. The site list is advisory
- C. You may use it on vegetables if the pest is listed
- D. Any site is fine at a low rate

27. An applicator is treating a lawn next to a vegetable garden. The best practice is to:

- A. Increase pressure
- B. Direct the spray away from the garden, use low-drift settings, and follow label buffer or site restrictions
- C. Spray over the garden
- D. Use a fogger

28. The LD50 value of a pesticide is:

- A. The number of days to breakdown
- B. The dose that kills 50% of test animals, usually expressed in mg per kg of body weight
- C. The percentage of active ingredient
- D. The legal limit on food

29. Contact pesticides:

- A. Control pests only on the parts they directly contact
- B. Work only as fumigants
- C. Must be absorbed and moved within the plant
- D. Are always systemic

30. Water-dispersible granules (WDG or DF) are:

- A. Oils
- B. Gases
- C. Granules that disperse in water to form a suspension, with less dust than wettable powders
- D. Granules applied dry

31. Using the 1/128-acre method, you collect 22 fl oz from a nozzle. The application rate is:

- A. 128 GPA
- B. 44 GPA
- C. 11 GPA
- D. 22 GPA

- 32.** Which weather condition is the BEST sign that a temperature inversion may be present?
- A. Heavy rain
 - B. Cloudy, windy afternoon
 - C. Smoke or dust hanging in a layer near the ground or drifting horizontally on a calm morning
 - D. Strong, gusty winds
- 33.** A pest that is present every year at damaging levels is a:
- A. Continuous or key pest
 - B. Migratory pest only
 - C. Sporadic pest
 - D. Potential pest
- 34.** Empty pesticide containers that have been properly rinsed should be:
- A. Reused for water
 - B. Punctured or otherwise made unusable, and recycled or disposed of per label and local rules
 - C. Burned in the open
 - D. Given to children for crafts
- 35.** A route-of-entry statement such as "Harmful if absorbed through skin" tells you:
- A. How the product can enter the body and the kind of protection needed
 - B. The storage temperature
 - C. The number of applications allowed
 - D. The product is safe to touch
- 36.** Which non-target organisms are especially sensitive to many insecticides?
- A. None
 - B. Only earthworms
 - C. Only mammals
 - D. Pollinators such as honey bees, and aquatic invertebrates
- 37.** A professional appearance and clean equipment help:
- A. Replace PPE
 - B. Hide violations
 - C. Replace training
 - D. Build public trust and reduce contamination
- 38.** A label section titled "Physical or Chemical Hazards" warns about:
- A. Hazards to bees
 - B. Harvest intervals
 - C. Toxicity to fish
 - D. Flammability, explosiveness, or reactivity
- 39.** Who usually has primary enforcement responsibility for pesticide use within a state?
- A. The FDA
 - B. The FAA
 - C. The state pesticide regulatory (lead) agency, often the department of agriculture
 - D. Local police only

- 40.** Broadcast application means:
- A. Injecting into soil
 - B. Applying only to spots
 - C. Applying only in bands
 - D. Applying pesticide uniformly over an entire area
- 41.** Which is a common symptom of mild pesticide poisoning?
- A. Lower heart rate with no other symptoms
 - B. Increased appetite
 - C. Improved vision
 - D. Headache, nausea, dizziness, or fatigue
- 42.** Before cleaning spray equipment, you should:
- A. Wear label-required PPE and choose a site where rinsate won't contaminate water
 - B. Clean it in the kitchen sink
 - C. Remove all PPE
 - D. Clean it next to a stream
- 43.** A drift control agent (drift retardant) is added to:
- A. Change the active ingredient
 - B. Make the product systemic
 - C. Increase droplet size and reduce fine particles
 - D. Increase fine droplets
- 44.** Which of the following is a reason a pesticide application might fail?
- A. Proper calibration
 - B. Following the label
 - C. Wrong timing, wrong product, poor coverage, resistance, or incorrect rate
 - D. Correct pest identification
- 45.** Plant growth regulators:
- A. Kill all plants
 - B. Control only insects
 - C. Are fumigants
 - D. Alter the growth or development of plants
- 46.** Who is responsible if a noncertified applicator under direct supervision misuses an RUP?
- A. The certified applicator shares responsibility, and enforcement may apply to both
 - B. Only the noncertified applicator
 - C. Only the manufacturer
 - D. No one
- 47.** A spill kit for pesticide handling should include:
- A. Absorbent material, a shovel or broom, heavy-duty plastic bags, PPE, and containers
 - B. Only paper towels
 - C. Only bleach
 - D. Only a garden hose

48. Using the formula $GPA = (GPM \times 5,940) / (MPH \times \text{nozzle spacing in inches})$, what is the rate for 0.3 GPM nozzles, 5 mph, and 20-inch spacing?

- A. 8.9 GPA
- B. 35.6 GPA
- C. 29.7 GPA
- D. 17.8 GPA

49. The "percent active ingredient" on a label tells you:

- A. The shelf life
- B. The signal word
- C. How much of the product is pesticidally active
- D. The percentage of water to add

50. Clothing that is drenched with a concentrated pesticide of high toxicity should be:

- A. Washed three times and reused
- B. Discarded according to label or regulatory guidance
- C. Given away
- D. Used as a rag

Answer Key: Practice Test 1

1. **D** (Sold or distributed in the United States (with limited exemptions)). Registration is required for sale and distribution. The EPA evaluates data on risks and benefits.
2. **B** (Hollow-cone nozzle). Hollow-cone nozzles produce fine droplets that help cover and penetrate foliage (with higher drift potential).
3. **B** (How long before rain a product must be applied to avoid wash-off). Rain soon after application can wash products off target surfaces. Some labels specify a rain-free period.
4. **B** (Product name, EPA Reg. No., amount, date, location, crop or site, and applicator). Records capture product, rate, amount, site, date and time, and applicator (plus other items required by law).
5. **C** (Using marking systems or GPS guidance to maintain proper swath spacing). Swath guidance helps keep coverage uniform.
6. **A** (The certified applicator is responsible for the use and meets federal and state requirements, such as training, instructions, and communication). Direct supervision follows specific rules (40 CFR 171.201) and any stricter state requirements.
7. **D** (Fumigation (soil and non-soil) and aerial). The rule added requirements for soil fumigation, non-soil fumigation, and aerial application categories.
8. **C** (During calm, clear conditions in early morning and evening). Clear, calm nights and early mornings favor inversions as the ground cools the air near it.
9. **A** (WARNING). WARNING is used for moderately toxic products (Category II).
10. **D** (Increase runoff). Compacted soils and slopes shed water, increasing runoff.
11. **C** (What to do if someone is exposed). This section gives first aid steps by route of exposure and may include a note to physicians.
12. **B** (It can provide a direct path for pesticides to reach groundwater). Sinkholes, abandoned wells, and similar features can carry pesticides directly into groundwater.
13. **C** (Wearing chemical-resistant suits in hot weather without breaks or water). Chemical-resistant clothing traps heat. Plan breaks, hydration, and cooler work times.
14. **D** (RCRA (Resource Conservation and Recovery Act)). RCRA regulates hazardous waste management and disposal.
15. **A** (Is part of the labeling and must be followed). Referenced supplemental materials are part of the labeling and are enforceable.
16. **B** (Checking label-referenced Endangered Species Protection Bulletins for use limitations in specific areas). When labels refer to Bulletins Live! Two, applicators must follow any use limitations for their location and month.
17. **D** (With the cuffs turned up to catch runoff, or taped at the sleeve). Cuffing gloves when working overhead keeps pesticide from running down into the glove and onto the arm.
18. **A** (Spraying a measured area at a steady pace and pressure and measuring the volume used). Measure the output over a known area at your normal walking speed and pressure.
19. **C** (In the vehicle's cargo area, secured, away from people, food, and feed). Keep pesticides out of passenger areas, secure them against shifting, and keep them away from food, feed, and people.

- 20. D** (Rotating or mixing effective modes of action as the label allows, and using IPM). Multiple modes of action and non-chemical tactics reduce selection pressure.
- 21. A** (Nozzle choice affects droplet size, pattern, flow rate, and drift). Nozzle type controls output, pattern, and droplet size, and so affects effectiveness and drift.
- 22. D** (Complete metamorphosis). Complete metamorphosis has four stages. Larvae often cause damage and are the target stage for many controls.
- 23. C** (Sticky traps, pheromone traps, sweep nets, and visual inspection). Traps and inspections give data on pest presence and numbers.
- 24. A** (Locked storage, controlled keys, inventory records, and reporting suspicious purchases or theft). Security prevents theft or misuse of pesticides.
- 25. C** (Are exempt from federal registration if they meet specific ingredient and labeling criteria, though states may still require registration). 25(b) products meet strict criteria and are exempt from federal registration. Many states still require state registration.
- 26. A** (Use on vegetable gardens isn't permitted). Sites not on the label aren't legal application sites for that product.
- 27. B** (Direct the spray away from the garden, use low-drift settings, and follow label buffer or site restrictions). Protect non-target sites by controlling drift and following label site restrictions.
- 28. B** (The dose that kills 50% of test animals, usually expressed in mg per kg of body weight). LD50 is the dose lethal to half of a test population. It measures acute toxicity.
- 29. A** (Control pests only on the parts they directly contact). Contact pesticides require good coverage because they don't move within the plant.
- 30. C** (Granules that disperse in water to form a suspension, with less dust than wettable powders). WDGs measure like granules and mix like WPs, with less dust during handling.
- 31. D** (22 GPA). Ounces collected on 1/128 acre equal gallons per acre, so 22 GPA.
- 32. C** (Smoke or dust hanging in a layer near the ground or drifting horizontally on a calm morning). Smoke that layers or moves sideways without rising suggests stable air, as in an inversion.
- 33. A** (Continuous or key pest). Continuous (key) pests need regular management. Sporadic pests are occasional, and potential pests rarely cause damage.
- 34. B** (Punctured or otherwise made unusable, and recycled or disposed of per label and local rules). Rinsed containers should be made unusable and recycled or disposed of as directed.
- 35. A** (How the product can enter the body and the kind of protection needed). Route-of-entry statements identify exposure routes and guide PPE and handling.
- 36. D** (Pollinators such as honey bees, and aquatic invertebrates). Many insecticides are highly toxic to bees and aquatic invertebrates.
- 37. D** (Build public trust and reduce contamination). Clean, well-maintained equipment and professional conduct support safety and public confidence.
- 38. D** (Flammability, explosiveness, or reactivity). This section covers hazards like flammability and reactivity.
- 39. C** (The state pesticide regulatory (lead) agency, often the department of agriculture). States with cooperative agreements usually enforce pesticide use laws.
- 40. D** (Applying pesticide uniformly over an entire area). Broadcast treatments cover the whole area evenly.

- 41. D** (Headache, nausea, dizziness, or fatigue). Early symptoms are often vague: headache, nausea, dizziness, weakness, and fatigue.
- 42. A** (Wear label-required PPE and choose a site where rinsate won't contaminate water). Cleaning exposes handlers to residues. Use proper PPE and a site that protects water.
- 43. C** (Increase droplet size and reduce fine particles). Drift retardants thicken sprays to reduce fine droplets.
- 44. C** (Wrong timing, wrong product, poor coverage, resistance, or incorrect rate). Most control failures trace back to identification, product choice, timing, coverage, calibration, or resistance.
- 45. D** (Alter the growth or development of plants). PGRs speed, stop, or otherwise change normal plant processes.
- 46. A** (The certified applicator shares responsibility, and enforcement may apply to both). Supervising applicators are accountable for the uses they supervise.
- 47. A** (Absorbent material, a shovel or broom, heavy-duty plastic bags, PPE, and containers). A spill kit lets you contain and clean up spills quickly while protecting yourself.
- 48. D** (17.8 GPA). $(0.3 \times 5,940) / (5 \times 20) = 1,782 / 100 = 17.8$ gallons per acre.
- 49. C** (How much of the product is pesticidally active). Percent active ingredient is the proportion of the product made up of the active ingredient.
- 50. B** (Discarded according to label or regulatory guidance). Heavily contaminated clothing, especially with highly toxic concentrates, should be discarded because washing may not remove the pesticide.

Practice Test 2

50 questions · Circle the best answer.

1. OSHA's Hazard Communication Standard applies to pesticides:
 - A. Only for homeowners
 - B. In some workplace contexts, while FIFRA labels remain the primary use requirement
 - C. Never
 - D. Only on farms
2. If a customer's child or pet enters a treated area before re-entry is allowed, you should:
 - A. Remove them from the area, follow label first aid if exposure occurred, and inform the customer
 - B. Increase the rate
 - C. Ignore it
 - D. Keep working
3. Products in the lowest toxicity category (Category IV):
 - A. Aren't required to carry a signal word, though many show CAUTION
 - B. Must show WARNING
 - C. Must show DANGER
 - D. Must show a skull and crossbones
4. Pant legs should be worn ____ chemical-resistant boots.
 - A. Rolled up above
 - B. Tucked inside
 - C. Without
 - D. Outside (over)
5. Which formulation is a finely ground, dry product applied without water and has high drift potential?
 - A. Emulsifiable concentrate
 - B. Dust
 - C. Granule
 - D. Pellet
6. Baits are formulations that:
 - A. Combine a pesticide with food or an attractant that pests eat
 - B. Are always sprayed on foliage
 - C. Can't harm non-targets
 - D. Are only fumigants
7. Before a pesticide application, checking the soil type and depth to groundwater helps you:
 - A. Select the brand
 - B. Assess leaching risk and choose products and practices to protect groundwater
 - C. Determine the price
 - D. Calibrate speed
8. The economic injury level is:
 - A. The pest density at which damage costs equal the cost of control
 - B. The maximum label rate
 - C. The legal limit for residues
 - D. The price of pesticide per acre

- 9.** The main purpose of a pressure gauge on a sprayer is to:
- A. Monitor and help maintain the pressure that controls flow rate and droplet size
 - B. Measure wind
 - C. Measure tank volume
 - D. Measure speed
- 10.** Pesticides should never be stored in:
- A. A locked cabinet
 - B. A ventilated storage building
 - C. Their original labeled containers
 - D. Food or beverage containers
- 11.** Which statement is appropriate when explaining pesticide risks to a homeowner?
- A. "Just trust me."
 - B. "This product is 100% safe."
 - C. "Chemicals can't hurt you."
 - D. "Following the label reduces risk. Here are the re-entry and precaution steps for your family and pets."
- 12.** Which section of the label describes hazards to fish, wildlife, pollinators, and water?
- A. Environmental hazards
 - B. Ingredient statement
 - C. Storage and disposal
 - D. Directions for use
- 13.** A noncertified applicator's qualifying training for RUP use must have been completed within the last:
- A. Training isn't required
 - B. 5 years
 - C. 10 years
 - D. 12 months
- 14.** Air-induction (venturi) nozzles are used primarily to:
- A. Replace pumps
 - B. Measure pressure
 - C. Produce very fine droplets
 - D. Produce larger, air-filled droplets that reduce drift
- 15.** Which is an example of unnecessary or ineffective pesticide use?
- A. Treating based on a confirmed pest at threshold
 - B. Calibrating equipment
 - C. Spraying a product not labeled or effective for the identified pest
 - D. Using IPM
- 16.** The Worker Protection Standard requires agricultural employers to provide pesticide safety training to workers:
- A. Never
 - B. Once in a lifetime
 - C. Every 12 months
 - D. Every 5 years

- 17.** Communication between a certified supervisor and a noncertified applicator must be:
- A. Available throughout the application, by a means allowed by the rules
 - B. Optional
 - C. Only through the customer
 - D. Only in writing afterward
- 18.** A sticker adjuvant:
- A. Helps the pesticide adhere to the surface and resist wash-off
 - B. Reduces toxicity
 - C. Makes droplets bounce
 - D. Lowers pH
- 19.** A wind blowing steadily away from a sensitive area at a moderate speed within label limits is generally:
- A. Always prohibited
 - B. The same as an inversion
 - C. A more favorable condition than dead calm or strong gusty wind toward sensitive areas
 - D. The worst condition
- 20.** A label rate is 1 fl oz per 1,000 sq ft. What is the equivalent rate per acre?
- A. 43.56 fl oz
 - B. 100 fl oz
 - C. 4.4 fl oz
 - D. 435.6 fl oz
- 21.** Insects with gradual metamorphosis have which immature stage?
- A. Larva
 - B. Maggot
 - C. Pupa
 - D. Nymph
- 22.** When pesticide is spilled on a person's skin and clothing, the FIRST steps are:
- A. Finish the job, then wash
 - B. Apply lotion
 - C. Cover with a bandage
 - D. Remove contaminated clothing and wash skin thoroughly with soap and water
- 23.** Eating, drinking, or smoking while handling pesticides:
- A. Is required
 - B. Is fine if gloves are worn
 - C. Reduces exposure
 - D. Should be avoided, and hands washed first, because it can lead to oral exposure
- 24.** Which pesticide property most increases leaching potential?
- A. High vapor pressure only
 - B. Rapid breakdown
 - C. Low water solubility and strong soil adsorption
 - D. High water solubility, weak soil adsorption, and long persistence

- 25.** A pesticide with an oral LD50 of 10 mg/kg compared with one of 2,000 mg/kg is:
- A. Not comparable
 - B. More toxic
 - C. Less toxic
 - D. Equally toxic
- 26.** The "three Cs" of spill response are:
- A. Count, Collect, Carry
 - B. Call, Cover, Complain
 - C. Control, Contain, Clean up
 - D. Check, Clean, Close
- 27.** Drift from a herbicide application onto a neighbor's garden is:
- A. Off-target movement that may cause damage and legal liability
 - B. The neighbor's problem
 - C. Beneficial
 - D. Allowed if unintentional
- 28.** A pre-emergence herbicide is applied:
- A. After weeds have emerged
 - B. Only to trees
 - C. Before weeds emerge, to control them as they germinate
 - D. Only to water
- 29.** Violations of FIFRA can result in:
- A. Civil and criminal penalties, including fines and possible imprisonment
 - B. Only a lawsuit from a neighbor
 - C. No consequences
 - D. Only a warning letter
- 30.** Some labels require an applicator to notify certain parties (for example, beekeepers or a state agency) before applying. This is:
- A. Replaced by posting
 - B. Optional courtesy
 - C. A product-specific notification requirement that must be followed
 - D. Only for aerial applications
- 31.** If a label lists a specific respirator type, the applicator should:
- A. Skip it if outdoors
 - B. Use a bandana
 - C. Use any dust mask
 - D. Use the specified type of respirator, properly fitted and maintained
- 32.** A field measures 660 feet by 330 feet. How many acres is it?
- A. 7.5 acres
 - B. 10 acres
 - C. 5 acres
 - D. 2.5 acres

- 33.** Sensitive areas that call for extra care during application include:
- A. Only industrial sites
 - B. Only parking lots
 - C. Schools, hospitals, water bodies, apiaries, organic farms, and endangered species habitat
 - D. None
- 34.** Storage and disposal statements on the label:
- A. Are optional
 - B. Give specific directions that must be followed for storing the product and disposing of containers and leftovers
 - C. Only apply to manufacturers
 - D. Only apply to empty containers
- 35.** A "broad-spectrum" insecticide:
- A. Controls a wide range of insects, including beneficials
 - B. Only controls weeds
 - C. Is always organic
 - D. Controls only one species
- 36.** Prevention as a pest management goal means:
- A. Eliminating all pests forever
 - B. Keeping a pest from becoming a problem
 - C. Spraying before identifying
 - D. Only using pesticides
- 37.** EPCRA (Emergency Planning and Community Right-to-Know Act) may require facilities that store certain pesticides above threshold amounts to:
- A. Get a pilot's license
 - B. Nothing
 - C. Stop using pesticides
 - D. Report inventories to state and local emergency planning authorities
- 38.** When calibrating a granular spreader, you need to know:
- A. The amount of product applied over a measured area at your normal speed and setting
 - B. Nothing, since granules don't need calibration
 - C. Only the product color
 - D. Only the spreader brand
- 39.** Adsorption is:
- A. Uptake by animals
 - B. Pesticide evaporation
 - C. Breakdown by light
 - D. Pesticide binding to soil particles such as clay and organic matter
- 40.** Applying a volatile herbicide on a very hot day increases the risk of:
- A. Better rainfastness
 - B. Vapor drift that can injure nearby susceptible plants
 - C. Leaching only
 - D. Lower toxicity

- 41.** Applying a pesticide for a pest not listed on the label is:
- A. Allowed at any rate
 - B. Only allowed for RUPs
 - C. Generally allowed under FIFRA if the site is on the label and the labeling doesn't prohibit it (state law may differ)
 - D. Always illegal
- 42.** For small containers (5 gallons or less), a triple rinse involves:
- A. Rinsing into a storm drain
 - B. Rinsing once with a full container of water
 - C. Just letting it drip dry
 - D. Filling the container about one-quarter full with water, capping and shaking, draining the rinsate into the spray tank, and repeating two more times
- 43.** Which statement about equipment dedicated to herbicides is true?
- A. Only aerial equipment needs cleaning
 - B. It's never needed
 - C. Using separate equipment for herbicides, or thorough cleaning, helps prevent injury to sensitive crops from residues
 - D. Herbicide residues can't injure plants
- 44.** Pesticide product registrations are periodically reviewed by the EPA through:
- A. No process
 - B. Customer surveys
 - C. Registration review, generally on a 15-year cycle
 - D. Annual renewal by applicators
- 45.** If you misplace a label, you should:
- A. Get a replacement label from the dealer, manufacturer, or a label database before using the product
 - B. Mix it with another product
 - C. Guess the rate
 - D. Use a label from a different brand
- 46.** Why should you avoid mixing more pesticide than you need?
- A. There is no reason
 - B. It saves money
 - C. Pesticides always improve with time
 - D. Leftover mix must be applied to a labeled site or managed as waste, which creates disposal problems
- 47.** Natural controls that affect pest populations without human action include:
- A. Only pesticides
 - B. Weather, topography, natural enemies, and food and water supply
 - C. Only traps
 - D. Only quarantines
- 48.** Soil incorporation of a pesticide means:
- A. Mixing it into the soil mechanically or with irrigation or rain as the label directs
 - B. Spraying it on leaves
 - C. Leaving it on the surface
 - D. Applying it to water

49. A pesticide storage area should be:

- A. Next to a well
- B. In a basement with floor drains to the sewer
- C. Near food storage
- D. Locked, well-ventilated, dry, and marked with warning signs

50. Pesticide application to animals (livestock) requires attention to:

- A. Only weather
- B. Only the animal's color
- C. Nothing special
- D. Label directions on species, age, withdrawal (slaughter) intervals, and dosage

Answer Key: Practice Test 2

1. **B** (In some workplace contexts, while FIFRA labels remain the primary use requirement). OSHA HazCom (SDS, training) applies in many workplaces. The pesticide label governs use.
2. **A** (Remove them from the area, follow label first aid if exposure occurred, and inform the customer). Protect people and pets and follow label first aid guidance if needed.
3. **A** (Aren't required to carry a signal word, though many show CAUTION). Category IV products aren't required to have a signal word. CAUTION may appear.
4. **D** (Outside (over)). Pant legs go over the boots so pesticide doesn't run down into them.
5. **B** (Dust). Dusts are very fine particles that drift easily and pose an inhalation risk.
6. **A** (Combine a pesticide with food or an attractant that pests eat). Baits attract pests to eat them. Place them to keep children, pets, and wildlife from reaching them.
7. **B** (Assess leaching risk and choose products and practices to protect groundwater). Site characteristics determine how likely pesticides are to reach groundwater.
8. **A** (The pest density at which damage costs equal the cost of control). Below this level, control costs more than the damage it prevents. Action thresholds are set below it to act in time.
9. **A** (Monitor and help maintain the pressure that controls flow rate and droplet size). Pressure affects nozzle output and droplet size, so an accurate gauge is essential.
10. **D** (Food or beverage containers). Transferring pesticides into food or drink containers causes many accidental poisonings, especially in children.
11. **D** ("Following the label reduces risk. Here are the re-entry and precaution steps for your family and pets."). Give accurate, label-based information. Avoid absolute safety claims.
12. **A** (Environmental hazards). Environmental hazard statements explain risks to non-target organisms and resources and give precautions to reduce them.
13. **D** (12 months). Under 40 CFR 171.201, the noncertified applicator must be trained within the last 12 months (or hold a qualifying credential, such as a current WPS handler training).
14. **D** (Produce larger, air-filled droplets that reduce drift). Air-induction nozzles reduce driftable fines.
15. **C** (Spraying a product not labeled or effective for the identified pest). Using the wrong product, or treating with no pest present, wastes money and increases risk.
16. **C** (Every 12 months). Under the 2015 WPS revisions, workers and handlers must be trained annually.
17. **A** (Available throughout the application, by a means allowed by the rules). Noncertified applicators need a way to reach the supervisor promptly.
18. **A** (Helps the pesticide adhere to the surface and resist wash-off). Stickers improve adhesion and rainfastness.
19. **C** (A more favorable condition than dead calm or strong gusty wind toward sensitive areas). Steady, moderate wind away from sensitive areas, within label limits, reduces drift risk compared with gusty winds, winds toward sensitive sites, or inversion calm.
20. **A** (43.56 fl oz). $43,560 / 1,000 = 43.56$, so 43.56 fl oz per acre (about 1.36 quarts).
21. **D** (Nymph). Gradual (simple) metamorphosis goes egg, nymph, adult, and nymphs often resemble the adults.

- 22. D** (Remove contaminated clothing and wash skin thoroughly with soap and water). Quick removal and washing reduce absorption. Then follow label first aid and seek medical help if needed.
- 23. D** (Should be avoided, and hands washed first, because it can lead to oral exposure). Hand-to-mouth contact is a common route of oral exposure.
- 24. D** (High water solubility, weak soil adsorption, and long persistence). Soluble, weakly adsorbed, persistent pesticides move with water through the soil.
- 25. B** (More toxic). The LOWER the LD50, the MORE toxic the product.
- 26. C** (Control, Contain, Clean up). Control the source, contain the spill, then clean it up, with required reporting.
- 27. A** (Off-target movement that may cause damage and legal liability). Applicators are responsible for keeping pesticides on target. Drift damage can bring enforcement and liability.
- 28. C** (Before weeds emerge, to control them as they germinate). Pre-emergence products form a barrier or zone that controls germinating weeds.
- 29. A** (Civil and criminal penalties, including fines and possible imprisonment). FIFRA provides civil and criminal penalties for violations.
- 30. C** (A product-specific notification requirement that must be followed). Product-specific notification requirements on labeling are mandatory for that use.
- 31. D** (Use the specified type of respirator, properly fitted and maintained). Use the respirator type the label specifies, fit-tested and maintained as required.
- 32. C** (5 acres). $660 \times 330 = 217,800$ sq ft. $217,800 / 43,560 = 5$ acres.
- 33. C** (Schools, hospitals, water bodies, apiaries, organic farms, and endangered species habitat). Sensitive areas need extra planning, buffers, and label compliance.
- 34. B** (Give specific directions that must be followed for storing the product and disposing of containers and leftovers). Storage and disposal directions are part of the labeling.
- 35. A** (Controls a wide range of insects, including beneficials). Broad-spectrum products affect many species, including natural enemies and pollinators.
- 36. B** (Keeping a pest from becoming a problem). Prevention stops pests from becoming a problem, for example through exclusion, sanitation, and resistant varieties.
- 37. D** (Report inventories to state and local emergency planning authorities). EPCRA requires reporting of certain hazardous chemicals, including some pesticides, above thresholds.
- 38. A** (The amount of product applied over a measured area at your normal speed and setting). Granular equipment output depends on gate setting, speed, and product. Calibrate with the product you will use.
- 39. D** (Pesticide binding to soil particles such as clay and organic matter). Adsorption holds pesticides on soil particles, reducing movement but possibly prolonging persistence.
- 40. B** (Vapor drift that can injure nearby susceptible plants). Higher temperatures increase volatilization and vapor movement off target.
- 41. C** (Generally allowed under FIFRA if the site is on the label and the labeling doesn't prohibit it (state law may differ)). FIFRA Section 2(ee) allows use against unlisted pests on a labeled site unless the label prohibits it, though some states restrict this.

- 42. D** (Filling the container about one-quarter full with water, capping and shaking, draining the rinsate into the spray tank, and repeating two more times). Triple rinsing, with rinsate added to the spray tank, removes most residue and lets you use the rinsate.
- 43. C** (Using separate equipment for herbicides, or thorough cleaning, helps prevent injury to sensitive crops from residues). Herbicide residue in a sprayer can injure sensitive plants on the next job.
- 44. C** (Registration review, generally on a 15-year cycle). The EPA re-evaluates registered pesticides through registration review, generally every 15 years.
- 45. A** (Get a replacement label from the dealer, manufacturer, or a label database before using the product). Never use a pesticide without its labeling. Get a copy from the manufacturer or a reliable label source.
- 46. D** (Leftover mix must be applied to a labeled site or managed as waste, which creates disposal problems). Calculate carefully so you mix only what you need.
- 47. B** (Weather, topography, natural enemies, and food and water supply). Climate, geography, predators, and resources naturally limit pest populations.
- 48. A** (Mixing it into the soil mechanically or with irrigation or rain as the label directs). Incorporation can reduce volatilization and photodegradation and place the pesticide where it works.
- 49. D** (Locked, well-ventilated, dry, and marked with warning signs). Good storage prevents unauthorized access, deterioration, and contamination.
- 50. D** (Label directions on species, age, withdrawal (slaughter) intervals, and dosage). Livestock labels specify species, dosage, and withdrawal intervals to prevent illegal residues.

Practice Test 3

50 questions · Circle the best answer.

1. A product carries the signal word DANGER but no skull and crossbones. This most likely means:
 - A. It is non-toxic
 - B. It is a restricted fumigant
 - C. It is the least toxic category
 - D. It can cause severe, possibly irreversible, eye or skin damage
2. Breakdown of pesticides by sunlight is called:
 - A. Volatilization
 - B. Photodegradation
 - C. Hydrolysis
 - D. Microbial degradation
3. Beneficial insects can be conserved by:
 - A. Spraying on a schedule
 - B. Removing all flowering plants
 - C. Choosing selective products and treating only when needed
 - D. Using broad-spectrum insecticides frequently
4. A nozzle's output is measured at 36 oz/min, while a new nozzle of the same type produces 32 oz/min. The worn nozzle should be:
 - A. Replaced, because it is about 12.5% above the new rate
 - B. Kept
 - C. Cleaned with a wire
 - D. Moved to the center of the boom
5. A respirator user must generally:
 - A. Wear it with a beard for a better seal
 - B. Use it only after symptoms appear
 - C. Be medically cleared and fit-tested for a tight-fitting respirator, and follow a replacement schedule for cartridges and filters
 - D. Share respirators with coworkers
6. Ready-to-use (RTU) formulations:
 - A. Are gases
 - B. Are applied as purchased without mixing
 - C. Are always restricted-use
 - D. Must be diluted with water
7. Liquid pesticides in storage should generally be kept:
 - A. Outside in the sun
 - B. Next to fertilizer only
 - C. Above dry products
 - D. Below dry products, so leaks don't contaminate them

- 8.** A pesticide product that has been stored for years and has an unreadable label:
- A. Should be mixed with fresh product
 - B. Shouldn't be used until identified, and may need disposal as waste per state guidance
 - C. Can be used at the usual rate
 - D. Should be dumped
- 9.** Label directions for PPE are:
- A. Suggestions only
 - B. Only for the first application
 - C. Minimum requirements that must be followed
 - D. Only for indoor use
- 10.** Why must ground speed be kept constant during application?
- A. Speed doesn't matter
 - B. Changing speed changes the amount applied per area
 - C. It keeps the tank cool
 - D. Faster speed reduces drift
- 11.** Eradication is a goal most often associated with:
- A. Home gardens
 - B. Programs to eliminate an introduced pest from a defined area
 - C. Monitoring
 - D. Everyday lawn care
- 12.** A noncertified applicator applying RUPs should have immediate access to:
- A. Nothing
 - B. Only the invoice
 - C. The company's tax records
 - D. Product labeling and the supervisor's contact information
- 13.** Which body area generally absorbs pesticides the fastest?
- A. Genital area
 - B. Bottom of the foot
 - C. Palm of the hand
 - D. Forearm
- 14.** A 400-gallon tank is applied at 25 GPA. The product rate is 1.5 pints per acre. How much product goes in a full tank?
- A. 37.5 pints
 - B. 6 pints
 - C. 16 pints (2 gallons)
 - D. 24 pints (3 gallons)
- 15.** Which droplet size is MOST prone to drift?
- A. Fine to very fine
 - B. Very coarse
 - C. Coarse
 - D. Extremely coarse

- 16.** A backpack sprayer is calibrated to apply 1.5 gallons per 1,000 sq ft. How much spray is needed for 3,000 sq ft?
- A. 4.5 gallons
 - B. 6 gallons
 - C. 1.5 gallons
 - D. 3 gallons
- 17.** Weeds that complete their life cycle in one year are called:
- A. Biennials
 - B. Perennials
 - C. Annuals
 - D. Woody weeds
- 18.** Hard water or alkaline water in a spray tank can:
- A. Reduce the effectiveness of some pesticides
 - B. Make any product systemic
 - C. Always improve performance
 - D. Remove the need for surfactants
- 19.** A biopesticide is:
- A. A synthetic organophosphate
 - B. A fumigant
 - C. A pesticide derived from natural materials such as microbes, plants, or certain minerals
 - D. Always restricted-use
- 20.** Doubling the spray pressure at a nozzle roughly:
- A. Has no effect
 - B. Doubles the flow rate
 - C. Halves the flow
 - D. Increases flow by about 40% and makes finer droplets
- 21.** Suspicious purchase requests, such as a stranger wanting a large amount of a highly toxic RUP with cash and no credentials, should be:
- A. Ignored
 - B. Filled with a discount
 - C. Refused and reported to appropriate authorities
 - D. Filled quickly
- 22.** Phytotoxicity means:
- A. Toxicity to people
 - B. Toxicity to birds
 - C. Injury to plants caused by a pesticide
 - D. Toxicity to fish
- 23.** The label lists "Do not graze treated areas." A cattle owner asks to graze two days after application. You should:
- A. Allow it if the pesticide is dry
 - B. Allow grazing if animals are healthy
 - C. Explain that the label prohibits grazing treated areas
 - D. Allow it with a waiver

- 24.** An applicator discovers that a treatment drifted onto a neighbor's property. The professional action is to:
- A. Blame the wind and leave
 - B. Retreat the area
 - C. Stop, assess, notify as required, and cooperate with the regulatory agency and the affected party
 - D. Say nothing
- 25.** A label statement reads "Do not apply when wind speed exceeds 10 mph." This is:
- A. Advisory
 - B. A suggestion for private applicators
 - C. Only for aerial use
 - D. Mandatory
- 26.** Soluble powders (SP) form a ____ when mixed with water.
- A. Suspension
 - B. Gel
 - C. True solution
 - D. Emulsion
- 27.** A seed treatment applies pesticide:
- A. Directly to seeds before planting
 - B. To foliage
 - C. To water
 - D. To the soil surface
- 28.** The phrase "It is a violation of Federal law to use this product in a manner inconsistent with its labeling" appears:
- A. On registered pesticide labels in general
 - B. Only on RUPs
 - C. Only on imported products
 - D. Only on fertilizer bags
- 29.** Bird kills can result from:
- A. Only rodenticides
 - B. Only herbicides
 - C. Granules or baits left exposed on the soil surface, or feeding on contaminated prey
 - D. Only fungicides
- 30.** For inhalation exposure, first aid usually begins with:
- A. Giving water
 - B. Applying ice
 - C. Inducing vomiting
 - D. Moving the person to fresh air, and getting medical help if needed
- 31.** Particle (spray) drift is mainly influenced by:
- A. The applicator's age
 - B. Droplet size, wind speed and direction, release height, and equipment setup
 - C. The EPA Reg. No.
 - D. Label color

- 32.** Under the WPS, the minimum age for pesticide handlers and early-entry workers is:
- A. 21
 - B. 16
 - C. 18
 - D. 14
- 33.** Under FIFRA Section 2(ee), which of these is NOT permitted?
- A. Applying to a site not listed on the label
 - B. Mixing with fertilizer, unless prohibited
 - C. Applying at a lower rate than labeled, unless prohibited
 - D. Applying by any method not prohibited by the label
- 34.** Labeling-specific safety information for a noncertified applicator includes:
- A. Only the company logo
 - B. Nothing
 - C. Label directions, precautions, PPE, and first aid for the product being used
 - D. Only weather data
- 35.** A basal bark treatment is:
- A. Injected into soil
 - B. Applied to the lower trunk of woody plants
 - C. Used indoors
 - D. Applied to leaves
- 36.** After application equipment is used, it should be:
- A. Rinsed into a ditch
 - B. Cleaned as the label and manufacturer direct, with rinsate applied to a labeled site
 - C. Stored full of mix
 - D. Left in the sun without rinsing
- 37.** Why does the label list the "brand" or trade name AND the common/chemical name of the active ingredient?
- A. Different brands may contain the same active ingredient, and the common name identifies what it is
 - B. Only for advertising
 - C. The trade name is the legal identifier and the chemical name is optional
 - D. Both are optional
- 38.** Treating a whole structure for a pest found only in one room when a targeted treatment would work:
- A. Is required by law
 - B. Reduces risk
 - C. Is always best
 - D. May be unnecessary use, increasing cost and exposure
- 39.** A buffering agent is used to:
- A. Adjust or stabilize the pH of the spray mixture
 - B. Increase drift
 - C. Make granules
 - D. Dye the spray

- 40.** Which is an example of a non-point source of contamination?
- A. Dumping rinsate at one spot
 - B. A spill at a mixing pad
 - C. A leaking storage tank
 - D. Pesticide runoff from many treated fields in a watershed
- 41.** A post-emergence herbicide is applied:
- A. Before weeds germinate
 - B. Only in winter
 - C. To weeds that have already emerged
 - D. Only through irrigation
- 42.** Hosing a pesticide spill into a ditch:
- A. Spreads contamination and may pollute water, so it should be avoided
 - B. Is required
 - C. Is the recommended clean-up method
 - D. Neutralizes the pesticide
- 43.** Mixing a pesticide with fertilizer is:
- A. Required
 - B. Only allowed indoors
 - C. Generally permitted under FIFRA unless the label prohibits it
 - D. Always prohibited
- 44.** A certified applicator's credential in one state:
- A. Is valid forever
 - B. Is automatically valid in all states
 - C. Generally applies only in the issuing state, unless reciprocity is granted
 - D. Is federal
- 45.** Tree injection applications:
- A. Are aerial only
 - B. Place pesticide directly into the tree's vascular system, reducing drift
 - C. Fog the area
 - D. Spray the canopy
- 46.** Which statement about acute and chronic toxicity is true?
- A. Chronic effects happen immediately
 - B. A product with low acute toxicity can't have chronic effects
 - C. Acute toxicity is measured in years
 - D. A product may have low acute toxicity but still pose chronic risks with repeated exposure
- 47.** Mode of action refers to:
- A. The price of a pesticide
 - B. The application equipment
 - C. How a pesticide affects the target pest's biology
 - D. The formulation type

- 48.** A private applicator (under federal definitions) is a certified applicator who uses RUPs:
- A. For hire on anyone's property
 - B. Only in homes
 - C. Only in public parks
 - D. To produce an agricultural commodity on property they or their employer own or rent
- 49.** If state law requires stricter recordkeeping than federal law, the applicator must follow:
- A. Federal law only
 - B. The stricter state requirement
 - C. Whichever is easier
 - D. Neither
- 50.** Children are at particular risk from pesticides because:
- A. They are always indoors
 - B. They may put things in their mouths, and their small size and developing bodies increase sensitivity
 - C. They aren't affected by pesticides
 - D. They wear PPE

Answer Key: Practice Test 3

1. **D** (It can cause severe, possibly irreversible, eye or skin damage). DANGER without "POISON" signals corrosive or severe eye and skin effects rather than high systemic toxicity.
2. **B** (Photodegradation). Photodegradation is breakdown by light. Microbial degradation is by microorganisms, and hydrolysis is by reaction with water.
3. **C** (Choosing selective products and treating only when needed). Selective products and threshold-based treatments protect natural enemies.
4. **A** (Replaced, because it is about 12.5% above the new rate). $(36 - 32) / 32 = 12.5\%$, above the common 10% replacement guide.
5. **C** (Be medically cleared and fit-tested for a tight-fitting respirator, and follow a replacement schedule for cartridges and filters). Tight-fitting respirators need medical evaluation and fit testing. Facial hair can break the seal.
6. **B** (Are applied as purchased without mixing). RTUs need no mixing. They are often sold in small containers.
7. **D** (Below dry products, so leaks don't contaminate them). Store liquids on lower shelves so leaks don't drip onto dry materials.
8. **B** (Shouldn't be used until identified, and may need disposal as waste per state guidance). Unidentified or deteriorated products shouldn't be used. Contact your state agency about disposal programs.
9. **C** (Minimum requirements that must be followed). Required PPE on the label is a legal minimum. More protection is allowed.
10. **B** (Changing speed changes the amount applied per area). Output per acre changes with speed unless the system compensates, so hold a steady speed.
11. **B** (Programs to eliminate an introduced pest from a defined area). Eradication targets invasive or quarantine pests in a defined area, usually through regulatory programs.
12. **D** (Product labeling and the supervisor's contact information). Labeling and a way to contact the supervisor are basic requirements.
13. **A** (Genital area). The genital area absorbs pesticides far faster than the palms or forearms. Wash hands before using the toilet.
14. **D** (24 pints (3 gallons)). $400 / 25 = 16$ acres per tank. 16×1.5 pints = 24 pints = 3 gallons.
15. **A** (Fine to very fine). Fine droplets are lighter, evaporate faster, and stay airborne longer.
16. **A** (4.5 gallons). $3,000 / 1,000 = 3$ units $\times 1.5$ gal = 4.5 gallons.
17. **C** (Annuals). Annuals complete their life cycle within one year. Biennials take two years, and perennials live more than two.
18. **A** (Reduce the effectiveness of some pesticides). Water quality (pH, hardness) affects some products. The label may recommend conditioning agents.
19. **C** (A pesticide derived from natural materials such as microbes, plants, or certain minerals). Biopesticides include microbial, biochemical, and plant-incorporated protectant types.
20. **D** (Increases flow by about 40% and makes finer droplets). Flow rises with the square root of pressure: doubling pressure gives about 1.4 times the flow. Pressure is a poor way to make large rate changes and increases fine droplets.

- 21. C** (Refused and reported to appropriate authorities). Part of chemical security is recognizing and reporting suspicious activity.
- 22. C** (Injury to plants caused by a pesticide). Phytotoxicity is plant injury, for example from drift onto sensitive crops or from high temperatures with some formulations.
- 23. C** (Explain that the label prohibits grazing treated areas). Grazing restrictions protect livestock and food residues and must be followed.
- 24. C** (Stop, assess, notify as required, and cooperate with the regulatory agency and the affected party). Honest reporting and cooperation are expected, and may be legally required.
- 25. D** (Mandatory). "Do not" statements are mandatory directions that must be followed.
- 26. C** (True solution). SPs dissolve completely, forming a true solution that needs little agitation after mixing.
- 27. A** (Directly to seeds before planting). Seed treatments protect seeds and seedlings. Treated seed must be handled, labeled, and disposed of properly.
- 28. A** (On registered pesticide labels in general). This misuse statement appears on registered pesticide labels.
- 29. C** (Granules or baits left exposed on the soil surface, or feeding on contaminated prey). Birds may eat exposed granules or baits or contaminated prey. Incorporate or clean up spilled granules as the label directs.
- 30. D** (Moving the person to fresh air, and getting medical help if needed). Move the victim away from vapors to fresh air, and call for help. Protect yourself before entering the area.
- 31. B** (Droplet size, wind speed and direction, release height, and equipment setup). Drift depends on droplet size and weather conditions, plus boom height and nozzle and pressure choice.
- 32. C** (18). The revised WPS sets 18 as the minimum age for handlers and early-entry workers.
- 33. A** (Applying to a site not listed on the label). Using a product on an unlisted site isn't allowed. 2(ee) permits certain deviations only if the labeling doesn't prohibit them.
- 34. C** (Label directions, precautions, PPE, and first aid for the product being used). Supervisors must make sure the noncertified applicator understands product-specific requirements.
- 35. B** (Applied to the lower trunk of woody plants). Basal bark treatments target the lower stem of brush and trees.
- 36. B** (Cleaned as the label and manufacturer direct, with rinsate applied to a labeled site). Proper cleaning prevents corrosion, cross-contamination, and later crop injury.
- 37. A** (Different brands may contain the same active ingredient, and the common name identifies what it is). Several brands can share an active ingredient. The common or chemical name tells you exactly what you are using.
- 38. D** (May be unnecessary use, increasing cost and exposure). Match the treatment scope to the actual infestation.
- 39. A** (Adjust or stabilize the pH of the spray mixture). Some pesticides break down faster in alkaline water. Buffers help keep pH in a suitable range.
- 40. D** (Pesticide runoff from many treated fields in a watershed). Non-point sources are diffuse, coming from widespread normal applications.
- 41. C** (To weeds that have already emerged). Post-emergence herbicides target actively growing, emerged weeds.

- 42. A** (Spreads contamination and may pollute water, so it should be avoided). Never wash spills into drains or ditches. Contain and absorb them.
- 43. C** (Generally permitted under FIFRA unless the label prohibits it). Section 2(ee) allows mixing with fertilizer if the labeling doesn't prohibit it.
- 44. C** (Generally applies only in the issuing state, unless reciprocity is granted). Certification is issued by state (or tribal or federal) authorities. Reciprocity varies.
- 45. B** (Place pesticide directly into the tree's vascular system, reducing drift). Injection delivers systemic products internally, with minimal environmental release.
- 46. D** (A product may have low acute toxicity but still pose chronic risks with repeated exposure). Acute and chronic toxicity are different. Repeated low exposures may cause long-term effects.
- 47. C** (How a pesticide affects the target pest's biology). Mode of action is the biological process a pesticide disrupts. Rotating modes of action slows resistance.
- 48. D** (To produce an agricultural commodity on property they or their employer own or rent). Private applicators use RUPs to produce agricultural commodities on their own or their employer's land, not for hire.
- 49. B** (The stricter state requirement). Applicators must comply with both federal and state laws, meeting the stricter standard.
- 50. B** (They may put things in their mouths, and their small size and developing bodies increase sensitivity). Curiosity, hand-to-mouth behavior, and physiology make children especially vulnerable. Store products locked and out of reach.

Practice Test 4

50 questions · Circle the best answer.

1. The label's first aid section may include a "Note to Physician." This is intended for:
 - A. The retailer
 - B. The applicator's supervisor
 - C. The customer
 - D. Medical personnel treating an exposure
2. The Spanish word that must appear with DANGER-POISON on highly toxic product labels is:
 - A. AVISO
 - B. CUIDADO
 - C. PELIGRO
 - D. VENENO only
3. Why is mixing and loading pesticide concentrates considered one of the highest-exposure tasks?
 - A. Because it happens indoors only
 - B. Because the pesticide is diluted
 - C. Because no PPE is ever needed
 - D. Because handlers work with undiluted concentrate that can splash and spill
4. Why is it important to protect pesticides from freezing or extreme heat during storage?
 - A. Temperature extremes can damage formulations, burst containers, or reduce effectiveness
 - B. Freezing increases potency
 - C. Heat makes pesticides non-toxic
 - D. It doesn't matter
5. Never clean a clogged nozzle tip by:
 - A. Using a nozzle cleaning tool
 - B. Using a soft brush
 - C. Blowing through it with your mouth
 - D. Soaking it in water
6. Emulsifiable concentrates (EC) may be:
 - A. Unable to mix with water
 - B. Completely non-toxic
 - C. Abrasive to nozzles
 - D. Easily absorbed through the skin, and may cause plant injury (phytotoxicity) at high temperatures
7. A weed identified as a "broadleaf" is generally controlled with:
 - A. A herbicide labeled for broadleaf weeds on that site
 - B. Any herbicide at any rate
 - C. Fungicide
 - D. Insecticide
8. Antagonism between two tank-mixed products means:
 - A. They become fumigants
 - B. Their combined effect is greater
 - C. The effectiveness of one or both is reduced
 - D. They don't mix physically

- 9.** When wind blows toward a sensitive area, the applicator should:
- A. Postpone the application or take label-allowed steps, such as buffers or drift-reducing nozzles, so drift doesn't reach the sensitive area
 - B. Increase pressure
 - C. Proceed and hope for the best
 - D. Raise the boom
- 10.** When a label requires a buffer zone from water or sensitive areas, you must:
- A. Reduce the rate instead
 - B. Ignore it on small jobs
 - C. Use granules instead without checking
 - D. Leave the untreated buffer as specified
- 11.** Perennial weeds are often hard to control because:
- A. They die every year
 - B. They are always small
 - C. They produce no seeds
 - D. They regrow from roots, rhizomes, bulbs, or tubers
- 12.** Microbial degradation of pesticides in soil is generally FASTEST when soils are:
- A. Compacted and saturated
 - B. Frozen
 - C. Cold and dry
 - D. Warm, moist, well-aerated, and rich in organic matter
- 13.** An electronic rate controller on a sprayer:
- A. Eliminates calibration
 - B. Measures wind
 - C. Replaces the label
 - D. Adjusts flow with speed changes to help maintain a consistent application rate
- 14.** The WPS "application exclusion zone" (AEZ) is:
- A. A buffer from water
 - B. A storage room
 - C. An area around application equipment during an application from which workers and others must be kept out
 - D. The treated area after the REI
- 15.** A commercial applicator generally:
- A. Sells pesticides only
 - B. Doesn't need certification
 - C. Uses or supervises the use of RUPs for any purpose other than as a private applicator, often for hire
 - D. Uses RUPs only on their own farm
- 16.** Absorbent materials used to clean up a liquid pesticide spill should be:
- A. Put in the household trash
 - B. Left on site
 - C. Placed in a sealed, labeled container and disposed of per label and regulations
 - D. Burned in the open

17. Space treatments or fogging indoors require:

- A. Only a mask
- B. No precautions
- C. Following label directions for evacuation, ventilation, and re-entry
- D. Only opening a window

18. Microencapsulated formulations:

- A. Are gases
- B. Contain no active ingredient
- C. Are always ultra-low volume
- D. Have the active ingredient enclosed in tiny capsules that release it slowly

19. Antimicrobial products that claim to kill germs on surfaces (disinfectants) are:

- A. Regulated only as cosmetics
- B. Not pesticides
- C. Pesticides regulated under FIFRA
- D. Medical devices only

20. Nozzle spacing and boom height should be set so that:

- A. The boom is as high as possible
- B. Spray patterns overlap correctly for uniform coverage, as recommended by the nozzle manufacturer
- C. Only the center nozzle sprays
- D. Spray patterns don't overlap

21. Residual pesticides:

- A. Break down immediately
- B. Can't be used indoors
- C. Are only baits
- D. Remain active on surfaces for a period of time after application

22. Using an impermeable mixing/loading pad with containment helps:

- A. Increase leaching
- B. Increase drift
- C. Capture spills and rinsate so they can be recovered instead of soaking into soil
- D. Speed up evaporation

23. A granular product contains 2% active ingredient. How much product is needed to apply 1 lb of active ingredient per acre?

- A. 20 lb
- B. 2 lb
- C. 200 lb
- D. 50 lb

24. Aerial applications of restricted-use pesticides require:

- A. No additional training
- B. Only a drone permit
- C. Aerial category certification under federal rules
- D. Only a pilot's license

- 25.** A decontamination site for handlers should include:
- A. Nothing special
 - B. Only a trash bin
 - C. Water, soap, and single-use towels, and extra clothing where required
 - D. Only a first aid poster
- 26.** Secondary poisoning refers to:
- A. Poisoning from drift only
 - B. Poisoning of a predator or scavenger that eats an animal that was poisoned
 - C. Poisoning of a person who reads a label
 - D. Poisoning after a second application
- 27.** Pesticide carryover refers to:
- A. Drift
 - B. Pesticides on clothing
 - C. Residual herbicide in soil that injures a later, sensitive crop
 - D. Carrying pesticides in a truck
- 28.** Pesticides applied directly to or near water may be regulated under the Clean Water Act through:
- A. RCRA licenses
 - B. FAA waivers
 - C. NPDES permits
 - D. FFDCA tolerances
- 29.** Why is knowing a pest's life cycle important for control?
- A. Many pests are only susceptible at certain life stages, so timing matters
 - B. It isn't
 - C. It determines label color
 - D. It sets the price
- 30.** The "Agricultural Use Requirements" box on WPS-covered labels typically contains:
- A. The EPA region
 - B. Price information
 - C. REI and early-entry PPE for workers
 - D. Only storage instructions
- 31.** A "directed spray under the crop canopy" helps to:
- A. Treat the crop's fruit
 - B. Fog insects
 - C. Reduce contact with crop foliage and place the pesticide at weeds
 - D. Increase drift
- 32.** "Precautionary statements" on a label include:
- A. Only the directions for use
 - B. Only the net contents
 - C. Hazards to humans and domestic animals, environmental hazards, and physical or chemical hazards
 - D. Only the price

- 33.** An EPA Establishment Number identifies:
- A. The facility where the product was produced
 - B. The EPA region
 - C. The product's registration
 - D. The applicator's license
- 34.** Why can completely calm air (0 mph) be a problem for spraying?
- A. It always causes rain
 - B. It can't be a problem
 - C. Calm air may indicate an inversion, and fine droplets can hang and move unpredictably
 - D. Pesticides won't leave the nozzle
- 35.** Organic vapor cartridges should be replaced:
- A. Never
 - B. When the respirator color fades
 - C. Only once a year
 - D. According to the label or manufacturer schedule, or sooner if you smell or taste the pesticide or breathing becomes difficult
- 36.** "Other ingredients" (inert ingredients) in a pesticide product:
- A. Are the active ingredient
 - B. May have their own hazards, such as solvents, even though they aren't the active ingredient
 - C. Must be listed by chemical name
 - D. Are always harmless
- 37.** Hoses and fittings on a sprayer should be:
- A. Shared with water systems
 - B. Replaced only after they burst
 - C. Painted each season
 - D. Inspected regularly and replaced when cracked, worn, or leaking
- 38.** Pesticide dealers who sell restricted-use pesticides are generally required to:
- A. Keep no records
 - B. Sell only to homeowners
 - C. Sell to anyone
 - D. Verify certification and keep sales records as required by law
- 39.** Suppression as a pest management goal means:
- A. Eliminating the pest completely
 - B. Preventing pest arrival
 - C. Reducing pest numbers to an acceptable level
 - D. Ignoring the pest
- 40.** You need a 2% solution (by volume) in a 3-gallon sprayer. About how much product do you add? (1 gal = 128 fl oz)
- A. 25.6 fl oz
 - B. 12.8 fl oz
 - C. 2.6 fl oz
 - D. 7.7 fl oz

- 41.** A desiccant is a pesticide that:
- A. Speeds drying of plant tissues
 - B. Kills insects
 - C. Repels birds
 - D. Controls rodents
- 42.** A person giving first aid to a pesticide victim should first:
- A. Rush in without protection
 - B. Protect themselves from exposure (for example, wear gloves) before helping
 - C. Leave the area permanently
 - D. Wait for symptoms
- 43.** Which is the correct response if the weather changes during an application and drift becomes likely?
- A. Finish quickly
 - B. Increase pressure
 - C. Stop the application until conditions are acceptable
 - D. Switch to a finer nozzle
- 44.** A product registered under a FIFRA Section 18 emergency exemption:
- A. Is permanently registered
 - B. Can be used anywhere in the U.S.
 - C. Needs no label
 - D. May be used only as specified in the exemption, for a limited time and area
- 45.** Why should applicators avoid making claims that a pesticide application will "guarantee" no pests?
- A. Guarantees are required
 - B. Pest control results vary, and misleading claims can violate consumer protection and pesticide laws
 - C. Customers dislike guarantees
 - D. No reason
- 46.** The Safety Data Sheet (SDS) for a pesticide provides:
- A. Only advertising
 - B. Tax information
 - C. Detailed hazard, handling, first aid, and emergency information
 - D. Only legal use directions
- 47.** Which task is the supervising applicator's responsibility before a noncertified applicator begins?
- A. Choosing truck color
 - B. Buying lunch
 - C. Only scheduling
 - D. Making sure equipment is in proper operating condition and calibrated
- 48.** Keeping current with label changes is important because:
- A. Old labels are always valid
 - B. Labels never change
 - C. Labels are revised, and the current labeling for the product in hand is what must be followed
 - D. Only manufacturers read labels

49. A pesticide that repels rather than kills pests is a:

- A. Defoliant
- B. Repellent
- C. Desiccant
- D. Fumigant

50. Training records for supervised noncertified applicators are important because:

- A. They are decorative
- B. They are optional
- C. They replace labels
- D. They show compliance with federal and state requirements during inspections

Answer Key: Practice Test 4

1. **D** (Medical personnel treating an exposure). The Note to Physician gives medical staff technical treatment information.
2. **C** (PELIGRO). Highly toxic products show PELIGRO along with DANGER and POISON in red and the skull and crossbones.
3. **D** (Because handlers work with undiluted concentrate that can splash and spill). Concentrates are more toxic per volume, and mixing and loading involves pouring and splashing. Labels often require extra PPE such as an apron and face shield.
4. **A** (Temperature extremes can damage formulations, burst containers, or reduce effectiveness). Follow label storage temperatures. Extremes can separate formulations or break containers.
5. **C** (Blowing through it with your mouth). Blowing through a nozzle risks oral exposure. Use a soft brush or tool.
6. **D** (Easily absorbed through the skin, and may cause plant injury (phytotoxicity) at high temperatures). ECs contain solvents that improve skin absorption and may injure some plants.
7. **A** (A herbicide labeled for broadleaf weeds on that site). Match the product to the pest group and site listed on the label.
8. **C** (The effectiveness of one or both is reduced). Antagonism reduces effectiveness. Check labels for compatibility and known antagonism.
9. **A** (Postpone the application or take label-allowed steps, such as buffers or drift-reducing nozzles, so drift doesn't reach the sensitive area). Check wind direction relative to sensitive areas before and during application.
10. **D** (Leave the untreated buffer as specified). Buffer requirements are mandatory label directions.
11. **D** (They regrow from roots, rhizomes, bulbs, or tubers). Underground structures let perennials survive treatments that only burn down top growth.
12. **D** (Warm, moist, well-aerated, and rich in organic matter). Microbes are most active in warm, moist, aerated soils with organic matter.
13. **D** (Adjusts flow with speed changes to help maintain a consistent application rate). Rate controllers help keep output constant but still need regular calibration and checks.
14. **C** (An area around application equipment during an application from which workers and others must be kept out). The AEZ moves with the equipment during certain applications. Handlers must suspend application if someone is in it.
15. **C** (Uses or supervises the use of RUPs for any purpose other than as a private applicator, often for hire). Commercial applicators include for-hire and many public or institutional applicators using RUPs.
16. **C** (Placed in a sealed, labeled container and disposed of per label and regulations). Contaminated absorbents are pesticide waste and must be handled properly.
17. **C** (Following label directions for evacuation, ventilation, and re-entry). Space treatments disperse pesticide into the air. Labels specify occupancy and ventilation requirements.
18. **D** (Have the active ingredient enclosed in tiny capsules that release it slowly). Microencapsulation can extend residual activity and reduce some handler exposure, but capsules may be picked up by bees.

- 19. C** (Pesticides regulated under FIFRA). Antimicrobials that make pesticidal claims are pesticides under FIFRA.
- 20. B** (Spray patterns overlap correctly for uniform coverage, as recommended by the nozzle manufacturer). Correct height and spacing give the intended overlap and uniform distribution.
- 21. D** (Remain active on surfaces for a period of time after application). Residual activity continues controlling pests after application. Consider non-target and residue impacts.
- 22. C** (Capture spills and rinsate so they can be recovered instead of soaking into soil). Containment pads prevent point-source contamination at mix and load sites.
- 23. D** (50 lb). $1 / 0.02 = 50$ lb of product per acre.
- 24. C** (Aerial category certification under federal rules). 40 CFR 171 established an aerial category. Pilots applying RUPs need that certification in addition to FAA requirements.
- 25. C** (Water, soap, and single-use towels, and extra clothing where required). Handlers need decontamination supplies nearby to wash off pesticides quickly.
- 26. B** (Poisoning of a predator or scavenger that eats an animal that was poisoned). Rodenticides, for example, can poison hawks, owls, or pets that eat poisoned rodents.
- 27. C** (Residual herbicide in soil that injures a later, sensitive crop). Persistent herbicides can carry over and injure rotational crops. Follow label rotation intervals.
- 28. C** (NPDES permits). Point-source discharges of pesticides to U.S. waters may require NPDES permit coverage.
- 29. A** (Many pests are only susceptible at certain life stages, so timing matters). Target the most vulnerable stage, such as young larvae or seedlings.
- 30. C** (REI and early-entry PPE for workers). The box refers to the Worker Protection Standard and states the REI and early-entry PPE.
- 31. C** (Reduce contact with crop foliage and place the pesticide at weeds). Directed sprays target weeds at the base and protect the crop.
- 32. C** (Hazards to humans and domestic animals, environmental hazards, and physical or chemical hazards). Precautionary statements cover human, environmental, and physical or chemical (for example, flammability) hazards.
- 33. A** (The facility where the product was produced). The establishment number identifies the producing facility and helps trace product problems.
- 34. C** (Calm air may indicate an inversion, and fine droplets can hang and move unpredictably). Very still air, especially at dawn and dusk, can mean an inversion, which increases drift risk. Follow label wind directions.
- 35. D** (According to the label or manufacturer schedule, or sooner if you smell or taste the pesticide or breathing becomes difficult). Cartridges have limited capacity. Follow replacement schedules and replace immediately on breakthrough.
- 36. B** (May have their own hazards, such as solvents, even though they aren't the active ingredient). Inert ingredients aren't pesticidally active but may still be hazardous (for example, petroleum solvents in ECs).
- 37. D** (Inspected regularly and replaced when cracked, worn, or leaking). Worn hoses can burst and cause exposure and spills.
- 38. D** (Verify certification and keep sales records as required by law). RUP dealers must sell only to certified applicators (or as otherwise allowed) and keep records.

- 39. C** (Reducing pest numbers to an acceptable level). Suppression reduces numbers or damage below an acceptable level.
- 40. D** (7.7 fl oz). 3 gal = 384 fl oz. $384 \times 0.02 = 7.68$, about 7.7 fl oz of product, then fill to 3 gallons.
- 41. A** (Speeds drying of plant tissues). Desiccants dry plant tissue, for example to aid harvest.
- 42. B** (Protect themselves from exposure (for example, wear gloves) before helping). Rescuers must avoid becoming victims too. Use protective gear when handling contaminated people or clothing.
- 43. C** (Stop the application until conditions are acceptable). Stop when conditions exceed label limits or drift risk rises.
- 44. D** (May be used only as specified in the exemption, for a limited time and area). Section 18 exemptions are temporary and limited to the circumstances and areas the EPA approves.
- 45. B** (Pest control results vary, and misleading claims can violate consumer protection and pesticide laws). Accurate claims protect customers and the business.
- 46. C** (Detailed hazard, handling, first aid, and emergency information). SDSs supplement the label with hazard and emergency details, but the label remains the legal use document.
- 47. D** (Making sure equipment is in proper operating condition and calibrated). Equipment inspection and calibration are part of the supervisor's duties.
- 48. C** (Labels are revised, and the current labeling for the product in hand is what must be followed). Always read the label on the product you are using. Directions and restrictions can change.
- 49. B** (Repellent). Repellents keep pests away and are regulated as pesticides.
- 50. D** (They show compliance with federal and state requirements during inspections). Regulators may inspect training records to verify qualified supervision.

Practice Test 5

50 questions · Circle the best answer.

1. Mixing and loading pesticides repeatedly at the same spot near a well can create:
 - A. Photodegradation
 - B. A non-point source
 - C. A point source of contamination
 - D. Better water quality
2. A defoliant:
 - A. Causes leaves to drop from plants
 - B. Repels insects
 - C. Controls mold
 - D. Kills fish
3. Fumigants are pesticides that:
 - A. Are applied as granules only
 - B. Are harmless to people
 - C. Act as gases or vapors to reach pests in enclosed spaces or soil
 - D. Are always general-use
4. If a pesticide fire occurs, you should:
 - A. Wait until it burns out
 - B. Evacuate people, call emergency services, and tell firefighters that pesticides are involved
 - C. Open all containers
 - D. Fight it alone with water
5. A fungicide applied before a disease appears to protect a plant is called a:
 - A. Defoliant
 - B. Desiccant
 - C. Curative/eradicator
 - D. Protectant (preventive)
6. Why should application records be made promptly?
 - A. Accurate records support compliance, help answer questions, and are required for many uses
 - B. Only for aerial jobs
 - C. They aren't required
 - D. Only for tax purposes
7. Which formulation is designed to be mixed with oil or applied in very small amounts per acre with special equipment?
 - A. Ultra-low volume (ULV) concentrate
 - B. Bait
 - C. Dust
 - D. Granule

8. Under the federal rule, applicator certification must be renewed (recertified) at intervals of no more than:
- A. 10 years
 - B. 1 year
 - C. 3 years
 - D. 5 years
9. Indoor applications can move off target through:
- A. Nothing
 - B. Only floors
 - C. Only doors
 - D. Heating, ventilation, and air conditioning (HVAC) systems and air movement
10. Why should you avoid applying pesticides to saturated soil or just before heavy rain is expected?
- A. It reduces cost
 - B. It increases the risk of runoff and leaching
 - C. There is no reason
 - D. It improves results
11. A label says "For retail sale to and use only by Certified Applicators or persons under their direct supervision." This statement indicates:
- A. An organic product
 - B. A general-use product
 - C. A restricted-use product
 - D. An expired product
12. A calibration check shows the sprayer applies 25 gallons per acre, but you intended 20 gallons per acre. The error is:
- A. 20% under
 - B. 25% over
 - C. No error
 - D. About 5%
13. Which pump type is common on small sprayers and handles abrasive formulations well?
- A. Centrifugal jet only
 - B. Roller pump only
 - C. Diaphragm pump
 - D. No pump
14. A supervisor learns a noncertified employee hasn't been trained in over a year. The supervisor should:
- A. Ask the customer to decide
 - B. Make sure they complete qualifying training before using RUPs under supervision
 - C. Ignore it
 - D. Let them apply RUPs anyway
15. A pesticide "device" (such as certain traps or UV light units) under FIFRA:
- A. Is a restricted-use pesticide
 - B. Needs a pilot's license
 - C. Is regulated for labeling and claims but doesn't require product registration
 - D. Isn't regulated at all

- 16.** If you change from water to a thicker carrier or add a product that changes viscosity, you should:
- A. Keep the same calibration
 - B. Recalibrate, because flow characteristics may change
 - C. Raise the boom
 - D. Increase speed
- 17.** Before an application, the applicator should check the weather forecast because:
- A. Weather never matters
 - B. Only for aerial jobs
 - C. Only in winter
 - D. Rain, wind, temperature, and inversions affect drift, runoff, and effectiveness
- 18.** Physical incompatibility in a tank mix may show up as:
- A. Faster drying
 - B. Better coverage
 - C. Clear, uniform solution
 - D. Clumping, separation, gelling, or settling
- 19.** The WPS requires employers to display pesticide safety information and application information at a:
- A. Customer's home
 - B. Retail store
 - C. Private office only
 - D. Central location accessible to workers and handlers
- 20.** Before re-entering a treated area without PPE, workers must wait until:
- A. The next day in all cases
 - B. One hour has passed
 - C. The spray dries, regardless of the label
 - D. The label's restricted-entry interval has expired, unless allowed exceptions apply
- 21.** Using pesticides in or near water may require:
- A. Only a fishing license
 - B. No additional steps
 - C. Label compliance and, in some cases, a Clean Water Act NPDES permit
 - D. Only verbal permission
- 22.** Rodents, birds, and other vertebrates that become pests are managed with:
- A. Integrated methods such as exclusion, sanitation, trapping, and, where legal, rodenticides or other labeled products
 - B. Only fungicides
 - C. Only insecticides
 - D. Only herbicides
- 23.** Professionalism in pesticide application includes:
- A. Using the most product possible
 - B. Cutting corners to save time
 - C. Following laws and labels, communicating honestly, protecting people and the environment, and staying trained
 - D. Ignoring customer concerns

- 24.** The Federal Food, Drug, and Cosmetic Act (FFDCA) is important to applicators because:
- A. It sets wage laws
 - B. It sets pesticide residue tolerances enforced on food and feed
 - C. It governs hunting
 - D. It regulates aircraft
- 25.** When a pesticide is splashed in the eye while wearing goggles, first aid involves:
- A. Continuing work
 - B. Removing contaminated goggles carefully and flushing the eye with clean water for at least 15 minutes
 - C. Applying eye drops only
 - D. Rubbing the eye
- 26.** Why should an applicator inspect the site before applying?
- A. To identify sensitive areas, people, animals, water, and hazards
 - B. Only to count trees
 - C. It isn't necessary
 - D. Only to measure the lawn for billing
- 27.** Plant diseases are caused by:
- A. Pathogens such as fungi, bacteria, viruses, and nematodes, or by non-living factors
 - B. Only herbicides
 - C. Only weather
 - D. Only insects
- 28.** Which of the following is NOT typically found on a pesticide label?
- A. Signal word
 - B. The retail price
 - C. EPA Registration Number
 - D. Directions for use
- 29.** The best time to apply a bee-toxic product to a field bordered by blooming weeds is:
- A. During bloom only
 - B. Following label directions, which often means late evening when bees aren't foraging, and after mowing blooming weeds
 - C. Any time
 - D. When bees are foraging at midday
- 30.** Transporting large quantities of certain pesticides on public roads may require compliance with:
- A. No regulations
 - B. FAA regulations
 - C. DOT hazardous materials regulations
 - D. FCC rules
- 31.** Rope-wick or wiper applicators are designed to:
- A. Apply herbicide by contact to taller weeds while avoiding shorter desirable plants
 - B. Fumigate soil
 - C. Spread granules
 - D. Fog insects

- 32.** To protect surface water from runoff, an applicator can:
- A. Apply to saturated soils
 - B. Increase rate on slopes
 - C. Apply just before heavy rain
 - D. Maintain vegetated buffer strips, avoid application before forecast heavy rain, and follow label setbacks
- 33.** A sprayer travels 220 feet in 30 seconds. What is the speed? (1 mph = 88 feet per minute)
- A. 5 mph
 - B. 3 mph
 - C. 8 mph
 - D. 6 mph
- 34.** Net contents on a label indicates:
- A. The shelf life
 - B. The total amount of product in the container
 - C. The spray volume per acre
 - D. The amount of active ingredient only
- 35.** Why should you look for pest signs such as droppings, frass, webbing, or damage patterns?
- A. Only for insurance
 - B. They aren't useful
 - C. They help identify the pest and the extent of infestation
 - D. Only for aerial applicators
- 36.** If a label prohibits use by noncertified applicators, then:
- A. A waiver allows it
 - B. Direct supervision by phone is enough
 - C. Only a certified applicator may apply the product
 - D. A certified applicator may still delegate the task
- 37.** Which part of the label tells you the maximum amount of product you may apply per season?
- A. Directions for use, including restrictions
 - B. Signal word
 - C. EPA Est. No.
 - D. Ingredient statement
- 38.** Which clothing is the minimum starting point for most pesticide applications?
- A. Long-sleeved shirt, long pants, shoes plus socks, with label-required PPE added
 - B. Shorts and sandals
 - C. Leather jacket only
 - D. Swimsuit
- 39.** Eyewear such as goggles or a face shield is especially important when:
- A. Reading the label
 - B. Stacking unopened containers
 - C. Pouring or mixing concentrates
 - D. Driving to the site

- 40.** Organophosphate and carbamate insecticides can cause poisoning by:
- A. Raising blood sugar
 - B. Blocking vitamin C
 - C. Inhibiting cholinesterase, an enzyme needed for normal nerve function
 - D. Causing sunburn only
- 41.** Contact lenses when handling pesticides:
- A. Can trap pesticide against the eye, so follow label and first aid directions to remove them during eye flushing
 - B. Replace goggles
 - C. Are required
 - D. Always improve protection
- 42.** A label calls for 0.5 lb of product per acre. How much product is needed for a 12-acre field?
- A. 24 lb
 - B. 6 lb
 - C. 12 lb
 - D. 4 lb
- 43.** Reusable chemical-resistant gloves should be:
- A. Turned inside out and stored wet
 - B. Shared
 - C. Washed on the outside before removal, then washed again and dried
 - D. Removed first, then washed
- 44.** The ingredient statement on a label lists:
- A. The active ingredient(s) by name and percentage, and the total percentage of other ingredients
 - B. The manufacturer's address only
 - C. Only the brand name
 - D. Only the inert ingredients by name
- 45.** Planting a crop variety bred to tolerate a disease is an example of:
- A. Chemical control
 - B. Mechanical control
 - C. Regulatory control
 - D. Host resistance (genetic control)
- 46.** Flowable or suspension concentrate (F or SC) formulations:
- A. Are gases
 - B. Are baits
 - C. Are dry powders
 - D. Are finely ground solids suspended in liquid, and usually need agitation
- 47.** Pesticides can harm fish and aquatic invertebrates through:
- A. Drift, runoff, or direct application to water
 - B. Only granular products
 - C. Only indoor use
 - D. Only aerial application

48. Which practice reflects good product stewardship?

- A. Storing products indefinitely
- B. Giving leftover RUPs to uncertified people
- C. Buying only what you need, using older stock first, and disposing of leftovers properly
- D. Buying large amounts that will expire

49. Before loading or mixing, you should read the label to learn:

- A. Only the manufacturer
- B. Only the rate
- C. The PPE required, the mixing directions, and any precautions
- D. Nothing, if you have used it before

50. A pesticide that isn't classified as either restricted or general use is:

- A. A Section 18 product
- B. Automatically restricted
- C. Illegal
- D. Unclassified

Answer Key: Practice Test 5

1. **C** (A point source of contamination). Repeated spills and rinsing at one location concentrate contamination, a point source.
2. **A** (Causes leaves to drop from plants). Defoliants cause leaves to drop, often to aid mechanical harvest.
3. **C** (Act as gases or vapors to reach pests in enclosed spaces or soil). Fumigants form toxic gases. Many are restricted-use and require additional certification.
4. **B** (Evacuate people, call emergency services, and tell firefighters that pesticides are involved). Firefighters need to know about pesticides to choose tactics and PPE. Runoff from firefighting water can also be hazardous.
5. **D** (Protectant (preventive)). Protectant fungicides work best before infection occurs. Some systemic fungicides have curative activity.
6. **A** (Accurate records support compliance, help answer questions, and are required for many uses). Records document what, where, when, how much, and by whom, and are often legally required.
7. **A** (Ultra-low volume (ULV) concentrate). ULV formulations are applied in very small volumes with specialized equipment. They often contain high concentrations of active ingredient.
8. **D** (5 years). 40 CFR 171 limits recertification intervals to no more than 5 years. Many states require renewal more often.
9. **D** (Heating, ventilation, and air conditioning (HVAC) systems and air movement). Air handling systems can carry vapors and fine particles. Follow label directions about ventilation.
10. **B** (It increases the risk of runoff and leaching). Wet soils and heavy rain move pesticides off target.
11. **C** (A restricted-use product). That statement appears on restricted-use pesticide labels.
12. **B** (25% over). $(25 - 20) / 20 = 25\%$ over-application. Adjust the equipment and recheck.
13. **C** (Diaphragm pump). Diaphragm pumps resist abrasion from wettable powders and are common on smaller sprayers.
14. **B** (Make sure they complete qualifying training before using RUPs under supervision). Current qualifying training is required before RUP use under supervision.
15. **C** (Is regulated for labeling and claims but doesn't require product registration). Devices are subject to FIFRA labeling and misbranding provisions but aren't registered like pesticide products.
16. **B** (Recalibrate, because flow characteristics may change). Viscosity changes can alter nozzle output.
17. **D** (Rain, wind, temperature, and inversions affect drift, runoff, and effectiveness). Weather affects both effectiveness and off-target movement.
18. **D** (Clumping, separation, gelling, or settling). Physical incompatibility causes lumps or layers that clog equipment and give uneven application.
19. **D** (Central location accessible to workers and handlers). The WPS requires a central display of safety information and application details.
20. **D** (The label's restricted-entry interval has expired, unless allowed exceptions apply). The REI on the label controls entry. Early entry requires specific PPE and conditions under the WPS.
21. **C** (Label compliance and, in some cases, a Clean Water Act NPDES permit). Applications to, over, or near water can trigger NPDES permit requirements in addition to label directions.

- 22. A** (Integrated methods such as exclusion, sanitation, trapping, and, where legal, rodenticides or other labeled products). Vertebrate management combines exclusion and habitat modification with legal control methods.
- 23. C** (Following laws and labels, communicating honestly, protecting people and the environment, and staying trained). Professionalism combines legal compliance, safety, honest communication, and continuing education.
- 24. B** (It sets pesticide residue tolerances enforced on food and feed). Under the FFDCA, the EPA sets tolerances. Food with residues above tolerance is adulterated.
- 25. B** (Removing contaminated goggles carefully and flushing the eye with clean water for at least 15 minutes). Flush immediately and thoroughly, then seek medical attention as the label directs.
- 26. A** (To identify sensitive areas, people, animals, water, and hazards). A site inspection supports safe, legal, effective applications.
- 27. A** (Pathogens such as fungi, bacteria, viruses, and nematodes, or by non-living factors). Diseases may be biotic (pathogens) or abiotic (for example, nutrient deficiency or chemical injury). Correct diagnosis guides treatment.
- 28. B** (The retail price). Prices aren't part of required labeling.
- 29. B** (Following label directions, which often means late evening when bees aren't foraging, and after mowing blooming weeds). Minimize bee exposure by timing and by removing attractive blooms, as the label directs.
- 30. C** (DOT hazardous materials regulations). The Department of Transportation regulates hazardous materials shipments, including placarding and shipping papers when thresholds are met.
- 31. A** (Apply herbicide by contact to taller weeds while avoiding shorter desirable plants). Wiper applicators place herbicide directly on weeds with minimal drift.
- 32. D** (Maintain vegetated buffer strips, avoid application before forecast heavy rain, and follow label setbacks). Buffers, timing, and following setbacks reduce runoff.
- 33. A** (5 mph). $220 \text{ ft in } 30 \text{ s} = 440 \text{ ft per minute}$. $440 / 88 = 5 \text{ mph}$.
- 34. B** (The total amount of product in the container). Net contents is the total weight or volume of product in the container.
- 35. C** (They help identify the pest and the extent of infestation). Signs and damage patterns help confirm identification and guide control decisions.
- 36. C** (Only a certified applicator may apply the product). Label restrictions against noncertified use must be followed. Only a certified applicator may apply.
- 37. A** (Directions for use, including restrictions). Rate limits, maximum seasonal amounts, and application intervals appear in the directions for use and use restrictions.
- 38. A** (Long-sleeved shirt, long pants, shoes plus socks, with label-required PPE added). Labels typically require at least long sleeves, long pants, and shoes plus socks, with chemical-resistant items added as specified.
- 39. C** (Pouring or mixing concentrates). Splashes during mixing and loading are a major cause of eye exposure.
- 40. C** (Inhibiting cholinesterase, an enzyme needed for normal nerve function). These classes inhibit cholinesterase, causing symptoms such as excess salivation, sweating, pinpoint pupils, and muscle twitching.

- 41. A** (Can trap pesticide against the eye, so follow label and first aid directions to remove them during eye flushing). Contact lenses can hold chemicals against the eye. First aid directions often say to remove them after the first few minutes of flushing.
- 42. B** (6 lb). $0.5 \text{ lb} \times 12 \text{ acres} = 6 \text{ lb}$.
- 43. C** (Washed on the outside before removal, then washed again and dried). Wash gloves before removing them so your bare hands don't touch contaminated surfaces.
- 44. A** (The active ingredient(s) by name and percentage, and the total percentage of other ingredients). The ingredient statement names each active ingredient with its percentage and lists "other" (inert) ingredients as a total percentage.
- 45. D** (Host resistance (genetic control)). Resistant varieties are a key IPM tool and reduce the need for pesticides.
- 46. D** (Are finely ground solids suspended in liquid, and usually need agitation). Flowables combine wettable-powder-type particles in a liquid concentrate and usually need agitation.
- 47. A** (Drift, runoff, or direct application to water). Any route that moves pesticide into water can harm aquatic life. Follow label buffers and hazard statements.
- 48. C** (Buying only what you need, using older stock first, and disposing of leftovers properly). Stewardship reduces waste, storage risk, and disposal problems.
- 49. C** (The PPE required, the mixing directions, and any precautions). Read the label every time. Formulations and directions can change.
- 50. D** (Unclassified). Products may be classified as general use or restricted use, or may remain unclassified.

Pesticide Core Exam: 1-Page Cheat Sheet

Signal words (acute toxicity)

Word	Category	Oral LD50 (mg/kg)
DANGER-POISON + skull & crossbones (+ PELIGRO)	I (highly toxic)	0-50
DANGER (no skull)	I (corrosive: severe eye/skin damage)	n/a
WARNING	II (moderate)	50-500
CAUTION	III (slight)	500-5,000
CAUTION or none	IV (low)	>5,000

Lower LD50 = more toxic. Risk = toxicity x exposure. "Keep Out of Reach of Children" goes on all labels.

Label must-knows

- The label is the law. Use inconsistent with labeling violates FIFRA.
- Mandatory: must / shall / do not. Advisory: should / recommended.
- EPA Reg. No. = product. EPA Est. No. = factory.
- REI = time before re-entry. PHI = days from last application to harvest.
- RUP = certified applicators or those under their direct supervision only.
- FIFRA 2(ee) OK (unless the label prohibits): lower rate, less often, unlisted pest on a labeled site, any method not prohibited, mixing with fertilizer. NEVER a higher rate or an unlisted site.

Environment

- Drift rises with fine droplets, high pressure, high boom, wind, and inversions (calm, cool air near the ground at dawn/dusk; smoke layers sideways).
- Leaching risk: sandy soil, low organic matter, shallow water table, soluble and persistent product.
- Runoff: slopes, compacted or saturated soil, heavy rain.
- Volatilization increases with heat. Photodegradation = sunlight. Microbes are fastest in warm, moist soil.
- Bees: don't spray blooms while bees forage. Keep an air gap or anti-backflow device when filling.
- Follow ESA bulletins (Bulletins Live! Two) when the label refers to them.

Pests / IPM

- Step 1: identify the pest. Then monitor, set thresholds, and combine methods (cultural, biological, mechanical, chemical, regulatory).
- Resistance: rotate modes of action.
- Complete metamorphosis: egg-larva-pupa-adult. Gradual: egg-nymph-adult.

Safety & first aid

- Skin is the #1 exposure route. Genital area absorbs fastest. Mixing concentrates is the riskiest task.
- Eyes: flush with clean water 15+ minutes. Skin: remove clothing, wash with soap and water. Inhaled: fresh air. Swallowed: follow the label (don't always induce vomiting).
- Poison Help: 1-800-222-1222. Bring the label to the doctor.
- Gloves: unlined chemical-resistant (nitrile/butyl), never leather or cotton. Pant legs OVER boots. Cuff gloves when working overhead.
- Wash PPE clothing separately. Discard clothing drenched with concentrate.
- Respirators: medical evaluation, fit test, replace cartridges on schedule or at breakthrough.
- OP/carbamate poisoning: cholinesterase inhibition (salivation, sweating, pinpoint pupils, twitching).
- Spills: Control, Contain, Clean up. Never hose into a drain.
- Triple rinse: 1/4 full, cap and shake, rinsate into the tank, repeat 3x. Make the container unusable, then recycle or dispose per label.
- Storage: locked, dry, ventilated, signed. Liquids below dry products. Never in food containers. Transport in the cargo area, secured.

Laws

- FIFRA (EPA): registration, labeling, RUPs, certification.
- FFDCA: EPA sets tolerances. FQPA (1996): kids, aggregate and cumulative risk.
- Section 18 = emergency exemption. 24(c) = special local need (state).
- WPS (40 CFR 170): farm workers and handlers. Annual training. Handlers 18+. AEZ.
- Commercial applicators 18+. Recertify at least every 5 years. States can be stricter.
- Supervising noncertified applicators: trained within 12 months, records kept 2 years, use-specific instructions, a way to communicate, 18+.
- Additional certification for fumigation (soil and non-soil) and aerial RUP use.

Math

- 1 acre = 43,560 sq ft. 1 gal = 128 fl oz.
- Acres/tank = tank gal ÷ GPA. Product/tank = rate x acres/tank.
- Product = lb a.i. ÷ (%a.i./100). mph = ft per min ÷ 88.
- GPA = GPM x 5,940 ÷ (mph x spacing in). 1/128-acre: oz caught = GPA.
- Replace nozzles about 10% over a new nozzle's output.

Unofficial. Original summary of public federal standards and EPA training material. Always follow the label and your state's rules.