# **Chemistry Lab Safety Quiz Example**

- 1. You are excused from wearing goggles in lab:
  - A) if you have permission from your doctor.
  - B) if they are uncomfortable to wear
  - C) if you are finished with the experiment and ready to clean up
  - D) if they offend your sense of style
  - E) none of the above
- 2. If you do not understand the experimental procedure
  - A) ask your classmate.
  - B) read the experiment many times.
  - C) leave the lab.
  - D) ask the instructor.
  - E) none of the above
- 3. You are permitted to enter the lab if:
  - A) the door is open and nobody is present.
  - B) the instructor is present.
  - C) the door is open and a group of students are present.
  - D) if the janitor is present with his safety trained dog.
  - E) the door is unlocked
- 4. Store your books and bags:
  - A) on your lab bench.
  - B) in the aisle between lab benches.
  - C) in the cabinet in the lab.
  - D) under your bench.
  - E) on the top of the instructor's desk.

- 5. To avoid electric shock when handling electric plugs and equipment:
  - A) your hands must be dry.
  - B) your clothes must cover your torso.
  - C) your food should be kept at a distance.
  - D) your shoes must cover your toes.
  - E) none of the above.
- 6. Proper footwear in lab is:
  - A) sandals that allow proper ventilation to the feet.
  - B) a comfortable pair of slippers.
  - C) closed shoes that don't expose any part of the feet
  - D) shoes with low heel.
  - E) footwear isn't particularly important in lab safety
- 7. If you need to touch or rub your eyes, you must
  - A) step outside the lab where there are no chemicals.
  - B) ask permission from the instructor.
  - C) use rubbing alcohol.
  - D) use the eye wash.
  - E) wash your hands.
- 8. According to the safety instructions, if you fail to follow any safety rule:
  - A) you may pay a fine
  - B) you may be dismissed from the lab
  - C) you may be asked to work with a partner
  - D) you may be asked to explain yourself
  - E) you may be asked to work alone and away from other students
- 9. For large chemical spills on the countertop or floor:
  - A) use a fume hood.
  - B) let the instructor perform the cleanup
  - C) use baking soda (sodium bicarbonate).
  - D) use emergency exits.
  - E) use a drench hose.

- 10. You should prepare for the lab by:
  - A) reading the experiment carefully when you enter the lab
  - B) washing your hands well before starting the experiment
  - C) listening well to other students discussing the experiment
  - D) reading the assigned experiment before coming to the lab
  - E) transcendental meditation
- 11. You may do an unassigned experiment, only:
  - A) if you are sure it is safe
  - B) if you have found it on the internet
  - C) if you have designed it carefully yourself
  - D) if you are finished early in lab
  - E) none of the above
- 12. Before evacuating the lab in case of earthquake or other emergency, you will first:
  - A) turn off gas valves and electrical equipment.
  - B) clean your desktop and work area thoroughly.
  - C) pick up all solids from the floor and sink even if they are not yours.
  - D) wash your hands and any other area of skin that has contacted lab equipment or lab benches.
  - E) make sure floor area, fume hoods, and sink area are clean.
- 13. In lab you are allowed to eat and drink only:
  - A) if you are very hungry.
  - B) if you have washed your hands well.
  - C) if the food is healthy and can be digested fast and easily.
  - D) if the food has been covered well to avoid contamination.
  - E) none of the above
- 14. The following should be reported to the instructor:
  - A) minor injuries only; go to the nurse on campus directly for major injuries.
  - B) major injuries only; minor injuries can be dealt with at home.
  - C) all accidents except minor chemical splashes and minor spills.
  - D) all injuries except small burns.
  - E) all accidents no matter how minor.

- 15. If you come to lab dressed inappropriately, you will:
  - A) not be allowed to do experiment, but you may watch your partner.
  - B) be asked to leave the lab.
  - C) watch the experiment from the side door or the screen monitor.
  - D) make up the lab after class dismissal.
  - E) borrow goggles and an apron to protect yourself.
- 16. Goggles should be worn:
  - A) only when working with solutions and liquids.
  - B) only when fumes are present.
  - C) only when doing specific dangerous experiments.
  - D) only when UV light is involved
  - E) all the time during lab.
- 17. You may leave a lighted Bunsen burner unattended only if:
  - A) you must go to the restroom.
  - B) your neighbor keeps an eye on it.
  - C) no one else is in the class but you.
  - D) you need to go to the reagent bench to quickly get more chemicals.
  - E) none of the above.
- 18. When you use a thermometer:
  - A) shake it down before using.
  - B) lay it on a towel.
  - C) lay it on a bench close to the edge.
  - D) hold it with a towel to prevent contamination.
  - E) none of the above.
- 19. If the eyewash or shower is used in lab, the affected area should be irrigated and rinsed with water for at least:
  - A) 20 seconds.
  - B) half a minute.
  - C) an hour.
  - D) 15 minutes.
  - E) none of the above.

- 20. If you spill solid chemicals on a balance:
  - A) clean it immediately using a bucket filled with water and a mop.
  - B) brush off any spills in to the solid waste container near the balances.
  - C) use a disinfectant like "Purell".
  - D) allow the chemicals to rest on the balance for at least 15 minutes before brushing it off
  - E) ignore it since you are not trained to handle spilled chemicals.

#### 21. Alcohol used in the lab:

- A) is tainted with poison.
- B) is suitable for drinking.
- C) must have a blue label.
- D) is not denatured.
- E) none of the above.

#### 22. The fume hood is used for:

- A) perfumed chemicals.
- B) experiments that may cause explosion.
- C) liquids that are colorless.
- D) procedures that produce smoke or toxic gases.
- E) none of the above.

#### 23. Store chemicals in:

- A) labeled containers.
- B) glass containers.
- C) plastic containers.
- D) large containers.
- E) plastic bags

# 24. An unused/leftover chemical should be:

- A) returned back immediately to its original container.
- B) returned back to its original container right before you leave the lab.
- C) stored in your locker
- D) sent out to the Safety Committee.
- E) disposed of in the designated waste container.

- 25. To remove solid chemicals from a bottle:
  - A) use your spatula to remove the solid.
  - B) use your spoon to remove the solid.
  - C) pour the solid directly into your container or use the spatula/scoopula provided with the bottle
  - D) pour the solid first into the palm of your hands.
  - E) none of the above.

### 26. You should get under the shower in lab:

- A) if you spill chemicals on your hands or fingers.
- B) if there is a large chemical splash on the body.
- C) if chemicals get splashed into your eyes.
- D) if there is a large chemical spill on the bench or floor.
- E) none of the above.

# 27. If your clothing catches fire:

- A) run quickly to the nearest drench hose or shower to smother the flame.
- B) drop to the floor and roll on the floor to smother the flame.
- C) let the instructor use the fire extinguisher to smother the fire
- D) ask the student next to you to spay you with water to smother the fire.
- E) none of the above.

#### 28. In case of an earthquake, first

- A) evacuate the lab immediately.
- B) evacuate the building immediately.
- C) run quickly towards the emergency exit.
- D) turn off the gas valve and stay away from falling objects.
- E) none of the above.

# 29. Before using the contents of a bottle, check:

- A) the size of the bottle.
- B) the color and consistency of the reagent inside.
- C) the odor and concentration of the reagent inside.
- D) the label on the bottle.
- E) none of the above.

- 30. For safety, long hair needs to:
  - A) be tied back.
  - B) hang over your face and cheeks for protection.
  - C) be cut short.
  - D) be dyed without using harsh chemicals.
  - E) none of the above.
- 31. If you feel ill in lab:
  - A) call your family at home.
  - B) tell the instructor.
  - C) ask your neighbor to help you do the experiment.
  - D) work with a partner in lab.
  - E) leave immediately.
- 32. If you notice unexpected chemical reaction of your experiment:
  - A) proceed with caution to the next step.
  - B) check with your neighbor to see if his experiment is doing the same.
  - C) leave the lab immediately.
  - D) notify the instructor.
  - E) none of the above.
- 33. To weigh 2 grams of salt in lab:
  - A) place salt into a beaker before weighing it on the balance.
  - B) place salt directly on the balance to avoid contamination.
  - C) put the scoopula with the sample in it on the balance
  - D) mix the salt with water before weighing it on the balance.
  - E) none of the above.
- 34. To remove liquid from a reagent bottle:
  - A) gently tap the bottle with the palm of your hands.
  - B) use your medicine dropper to get out the amount of liquid needed.
  - C) pour some liquid directly into your container or use the dropper provided with the bottle
  - D) use your spatula to get the required amount.
  - E) none of the above.

- 35. If a ground glass stopper is frozen (stuck) to a bottle:
  - A) keep it between your fingers to warm it up.
  - B) wiggle it nonstop until eventually it becomes loose.
  - C) pull it out with all your strength while your neighbor holds the bottle.
  - D) report it to your instructor.
  - E) none of the above.
- 36. Since you cannot tell from the appearance of a metal or glass that it is still hot, you should test it by:
  - A) cautiously touching it lightly with your fingers.
  - B) cautiously touching it with the palm of your hand.
  - C) cautiously bringing the back of your hand close to the hot glass or metal.
  - D) cautiously spraying it with cold water to see if it spatters.
  - E) none of the above.
- 37. A hot object, like an evaporating dish or crucible, is allowed to cool by placing it on:
  - A) your lab notebook.
  - B) paper towel.
  - C) lab bench.
  - D) wire gauze.
  - E) none of the above.
- 38. In case of accident, an injury to you or to your classmate
  - A) must be reported immediately to the instructor.
  - B) will require that all students evacuate the lab.
  - C) can be ignored if it is minor.
  - D) must be ignored if it is not painful.
  - E) must be handled quietly by yourself, without telling anyone.
- 39. To add water to a reagent used in an experiment:
  - A) use water from the faucet.
  - B) use distilled or deionized water.
  - C) fill the wash bottle with tap water and use that to add water
  - D) use your own water bottle from home.
  - E) none of the above.

- 40. To dispense a required amount of reagent:
  - A) bring reagent bottle to your bench, and return it immediately after you are done.
  - B) take your container to the reagent bench.
  - C) move reagent bottle to a designated area for dispensing.
  - D) ask the instructor to dispense it for you.
  - E) none of the above; reagents are not to be dispensed in lab for safety reasons.
- 41. In lab, to avoid bumping into other students, you should:
  - A) never step backward.
  - B) use the back up cart.
  - C) take one step forward before you back up.
  - D) look behind you before you back up.
  - E) step backward only if instructed to do so.
- 42. Proper apparel for the lab includes
  - A) dangling jewelry.
  - B) short, fitted clothes.
  - C) loose clothes with loose sleeves that also cover your torso.
  - D) clothes that cover your torso and your legs to the knees.
  - E) none of the above.
- 43. Pick up a reagent bottle by holding it:
  - A) with your palm over the label.
  - B) at the top part above the label.
  - C) at the bottom part underneath the label.
  - D) by the lid or stopper.
  - E) none of the above.
- 44. A small contained fire may be:
  - A) smothered by covering it with a fire blanket.
  - B) placed carefully in the sink to be drenched with water.
  - C) smothered by covering it with a cover plate or a watch glass.
  - D) picked up and thrown into the trash can.
  - E) watched it closely until it burns itself out completely.

- 45. You can only change the procedure of the experiment if:
  - A) you know for sure it is safe to do so.
  - B) your neighbor is willing to help you.
  - C) you want to do something different from everyone else.
  - D) you know it will be more interesting.
  - E) none of the above.
- 46. You must wear goggles in the lab because:
  - A) they look cool and declare you as a budding scientist
  - B) they protect your eyes from fumes and odors.
  - C) they protect your eyes from chemical splashes.
  - D) the instructor wants all students to have uniform eyewear.
  - E) none of the above.
- 47. To dilute a concentrated acid:
  - A) add acid to the water.
  - B) add water to the acid.
  - C) mix both, the water and the acid, simultaneously.
  - D) never mix acid and water; the result could be quite hazardous.
  - E) you need to use a rubber policeman
- 48. Wash bottles should be filled only with
  - A) washing or cleansing solution.
  - B) tap water.
  - C) distilled or deionized water.
  - D) distilled alcohol.
  - E) none of the above.

- 49. When heating liquid in test tube, the open end of the test tube:
  - A) should point towards you.
  - B) should be pointing along the length of the bench, and not pointing towards you or anyone lese.
  - C) should point towards the person across the lab bench from you since they are far enough away
  - D) should be covered with a stopper or cork to avoid contamination.
  - E) none of the above.
- 50. If you spill a large amount of chemical on the floor:
  - A) you can ignore it and keep working on your experiment so you can finish on time.
  - B) clean it up yourself.
  - C) keep it confidential and do not let the students around you know about it.
  - D) alert nearby students and call the instructor for instructions about how to clean it up.
  - E) none of the above.

# **Chemistry Lab Safety Quiz Example Answer Section**

- 1. ANS: E
- 2. ANS: D
- 3. ANS: B
- 4. ANS: D
- 5. ANS: A
- 6. ANS: C
- 7. ANS: E
- 8. ANS: B
- 9. ANS: B
- 10. ANS: D
- 11. ANS: E
- 12. ANS: A
- 13. ANS: E
- 14. ANS: E
- 15. ANS: B
- 16. ANS: E
- 17. ANS: E
- 18. ANS: B
- 19. ANS: D
- 20. ANS: B
- 21. ANS: A
- 22. ANS: D
- 23. ANS: A
- 24. ANS: E
- 25. ANS: C 26. ANS: B
- 27. ANS: B
- 28. ANS: D
- 29. ANS: D
- 30. ANS: A
- 31. ANS: B
- 32. ANS: D
- 33. ANS: A
- 34. ANS: C
- 35. ANS: D

- 36. ANS: C
- 37. ANS: D
- 38. ANS: A
- 39. ANS: B
- 40. ANS: B
- 41. ANS: D
- 42. ANS: D
- 43. ANS: A
- 44. ANS: C
- 45. ANS: E
- 46. ANS: C
- 47. ANS: A
- 48. ANS: C
- 49. ANS: B
- 50. ANS: D