

## 15 MATERIALS HANDLING AND STORAGE

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### QUIZ 1 (19 POINTS)

#### *True/False (5 points)*

1. Material stored on racks, pallets, or skids may present a hazard to employees.
  - a. true
  - b. false
2. Some European and U.S. storage facilities have approximately 100-foot-high automated storage units.
  - a. true
  - b. false
3. Tank cars holding chemicals should be unloaded through the dome connection rather than through the bottom connection.
  - a. true
  - b. false
4. Preventing skin contact with dust is easier when emptying bags and barrels than when filling them.
  - a. true
  - b. false
5. All gases except oxygen have the potential to cause asphyxiation.
  - a. true
  - b. false

#### *Multiple Choice (4 points)*

6. What causes most lower-back injuries?
  - a. tasks requiring lifting
  - b. lowering heavy objects
  - c. twisting the body
  - d. falling
7. What portion of workplace injuries are back injuries?
  - a. 10 percent
  - b. 20 percent
  - c. 30 percent
  - d. 40 percent
8. What lifting technique is best for all situations?
  - a. straight back/bent knees
  - b. kinetic lift
  - c. free-style
  - d. none of the above

9. While lifting and carrying objects, the worker should keep the load \_\_\_\_\_.
- a. at a distance
  - b. close to the body
  - c. as low as possible
  - d. at shoulder height

**Short Answer (8 points)**

10. What type of protective equipment should material handlers wear?
11. What are four fall-protection measures?
12. What two limits have been established for lifting?
13. What kind of protective equipment do workers need when they move plate glass?
14. What are the most commonly used hand tools for the manual lifting of materials?

15. What are three major sources of chemical injury in pipeline work?

16. How should compressed gas cylinders be stored?

17. What are some common uses for cryogenic liquids?

***Short Essay (2 points)***

18. What is a special hazard for storing burlap sacking, and how can it be reduced?

19. What are some of the special precautions called for when storing explosives in a magazine?

**QUIZ 2 (16 POINTS TOTAL)**

***True/False (5 points)***

1. Industry moves about 50 tons of material for each ton of product produced.
  - a. true
  - b. false
  
2. Safe lifting limits have been established that are applicable to all workers.
  - a. true
  - b. false

3. The annual cost of back injuries is estimated at \$20-\$50 billion.
  - a. true
  - b. false
  
4. Training for safe materials handling should not be expected to solve the problem of injuries.
  - a. true
  - b. false
  
5. A secure grip can be achieved by holding a load with the fingertips.
  - a. true
  - b. false

**Multiple Choice (4 points)**

6. Approximately what portion of all occupational injuries is attributed to handling of material?
  - a. 50 percent
  - b. 20-45 percent
  - c. 25 percent
  - d. 10-20 percent
  
7. A rule of thumb for stacking heights is \_\_\_\_\_ times the minimum base diameter of the container.
  - a. five
  - b. four
  - c. three
  - d. two
  
8. What should floors be made of where corrosive liquids are stored?
  - a. cinders or treated concrete
  - b. wood
  - c. earthen
  - d. terrazzo
  
9. What amount of distance must be kept between sprinkler heads and stored materials?
  - a. 3 feet
  - b. 2 feet
  - c. 18 inches
  - d. 12 inches

**Short Answer (5 points)**

10. What are some of the benefits of mechanized handling?

11. Should four-wheeled trucks be pushed or pulled, and why?

12. What are three main hazards for users of two-wheeled or four-wheeled trucks?

13. What are the two major criticisms about the use of back belts?

14. Static electricity is the source of ignition in many fires. How can it be prevented?

***Short Essay (2 points)***

15. What basic questions serve as a start for an appraisal of injuries caused by materials handled?

16. Properly analyzed lifting tasks may be of what three types?