Competency	Rating Scale				
	4	**3**	**2**	**1**	**0**
1. Define ergonomics.					
2. Describe the principle of ergonomics.					
3. List a minimum of two examples of how the ergonomic principle is applied in a selected workplace.					
4. Describe how ergonomics may be further applied in the selected workplace.					

Rating Scale
Indicate the level of competency for each task by checking the appropriate box.

The student:

4 exceeds defined outcomes. Plans and solves problems effectively and creatively in a self-directed manner. Tools, materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity are consistent and exceed standards. Leads others to contribute team goals.

3 meets defined outcomes. Plans and solves problems in a self-directed manner. Tools, materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent. Works cooperatively and contributes ideas and suggestions that enhance team effort.

2 meets defined outcomes. Plans and solves problems with limited assistance. Tools, materials and/or processes are selected and used appropriately. Quality and productivity are reasonably consistent. Works cooperatively to achieve team goals.

1 meets defined outcomes. Follows a guided plan of action. A limited range of tools, materials and/or processes are used appropriately. Quality and productivity are reasonably consistent. Works cooperatively.

0 has not completed defined outcomes. Tools, materials and/or processes are used inappropriately.

To qualify for credentialling, the student must attain a minimum rating of 2 in each competency.

Ergonomic Rating Scale

1. The science dealing with adapting the work environment to meet human needs.

2. Fit the task to the worker, rather than the worker to the task.

3. Examples:
   - adjustable furniture
   - appropriate lighting
   - control clustering
   - placement of control indicators
   - accessibility of work interface
   - not exceeding personal limitations

4. Examples:
   - ergonomic keyboards
   - ergonomic chairs
   - lighting controls

Scenario

A Jones & Smith Co. Employee was admitted to City Hospital Wednesday after he inhaled the toxic fumes of a cleaning liquid. A hospital spokesman said the employee was listed in serious condition. Two others were treated for chemical inhalation and are reported in satisfactory condition.

The accident occurred at 11:00 while the three workers were using a potent fluid to clean a 5 m deep pit. Reports state that the inhalation of the chemical chlorothene caused the one worker to go into cardiac arrest. The report further states the workers were found some time later by a passer-by.

Questions

1. Is the occurrence describe above an:

   a. accident
   b. incident

2. List a minimum of three unsafe acts or conditions.

   a.
   b.
   c.

3. List and describe a minimum of four hazard controls needed to prevent a similar accident.

   a.
   b.
   c.
   d.

Scenario Assessment Tool

1. Accident, because personal injury occurred. (100% accuracy)

2. Causation:
    a. inadequate PPE
    b. exposure to hazardous conditions (environment)
    c. inadequate ventilation
    d. possible lack of adequate written company policy on confined space entry
    e. lack of an assistant on the outside of the pit
    f. inadequate training of personnel, including not being familiar with the MSDS on chlorothene

3. Hazard controls:
    a. adequate PPE
    b. substitution of a nontoxic cleaning material
    c. provide proper ventilation into the pit
    d. adequate written company policy
    e. have an assistant outside of the pit ready to provide assistance
    f. proper training programs

Rating Scale

To qualify for credentialling, the student must answer all questions correctly.

Multiple Choice

1. Which of the following is not a basic need of a fire?

   A. oxygen
   B. carbon dioxide
   C. fuel
   D. heat

2. TDG stands for:

   A. Transporting Damaged Goods
   B. Transportation of Dangerous Goods
   C. Transferring of Dangerous Goods
   D. Transferring of Damaged Goods

3. The placard that has a skull and cross bones on it means that the contents are:

   A. dangerous
   B. poisonous
   C. combustible
   D. a gas

4. The placard that has fire on it means that the contents are:

   A. dangerous
   B. poisonous
   C. combustible
   D. a gas

5. The person who is transporting the goods is called the:

   A. consignor
   B. carrier
   C. consignee
   D. trucker

6. The person who is to receive the goods is called the:

   A. consignor
   B. consignee
   C. carrier
   D. trucker

7. The person who is to ship the goods is called the:
   A. consignor
   B. consignee
   C. carrier
   D. trucker

8. A confined space has:

   A. inadequate access
   B. inadequate egress
   C. potentially hazardous environment
   D. all of the above

9. In TDG, PIN stands for:

   A. personal identification number
   B. product identification number
   C. package identification number
   D. none of the above

10. Dangerous goods are divided into areas according to the primary hazards of the material. These are called:

    A. divisions
    B. classes
    C. segregation
    D. partitions

True Or False

T F 1. A “confined space” is any area with limited entry and exit, which contains known and potential hazards and which is not designated for continuous human occupancy.

T F 2. Before entering a confined space, an entry permit must be obtained and completed.

T F 3. The two major factors that lead to fatalities when working in confined spaces are failure to recognize hazards and incorrect rescue attempts.

T F 4. Oxygen and other atmospheric tests should be conducted in more than one location.

T F 5. A “hot work” permit must be obtained before entering a confined space that has an average temperature in excess of 90° F.

T F 6. Testing of the atmosphere within a confined space should be conducted to determine any hazards of flammability, an excess or deficiency of oxygen, toxic vapours or gases, as well as toxic substances that can be absorbed through the skin.

T F 7. The permissible exposure level represents the level of atmospheric concentrations to which a person may be repeatedly exposed without suffering adverse health affects.

T F 8. A person’s size or strength would prohibit participation in confined space operations.

T F 9. Isolate a confined space prior to entry by disconnecting/blanking off all pipe connections

T F 10. The term standby refers to the individual responsible for observing and maintaining communications with those inside of the confined space.

T F 11. A confined space should be purged and cleaned prior to entry to remove any tank residues and reduce the possibility of harmful contact with toxic materials.

T F 12. When a standby observes that an individual within the confined space has been overcome, the standby should sound the alarm.

T F 13. Either a self-contained breathing apparatus (SCBA) or an air-line respirator with an emergency escape bottle is required if entry into an IDLH (immediately dangerous to life or health) is necessary.

T F 14. An oxygen deficiency is present if the percentage of oxygen is below 19.5%.

T F 15. Fire requires fuel, oxygen and heat for ignition to occur. Take away one and the fire cannot occur.

T F 16. Fire needs an atmosphere of 21% oxygen—the same as the air we breath—to sustain ignition.

T F 17. Class A fires are fueled by ordinary combustible or fibrous material, such as wood, paper, cloth and some plastics.

T F 18. Class B fires include flammable or combustible liquids, greases and gases, such as gasoline, paint and propane.

T F 19. Class C fires include electrical equipment such as motors and heaters that are not connected to a power source.

T F 20. Combustible metals (Class D) are difficult to extinguish, because once ignited, they give off sufficient oxygen to support combustion.

T F 21. Class D fires can be extinguished with water.

T F 22. Keeping the work area free of litter is one way to help prevent Class A fires.

T F 23. Gasoline-powered equipment can be refueled while hot if refueling is done in a well-ventilated area.

T F 24. Heat from an uncovered light bulb can easily ignite ordinary combustibles.

T F 25. A spark from a rough-running motor can ignite the oil and dust in it.

T F 26. You may use a higher amp-fuse than is specified for an electrical circuit if you first tag the fuse box to mark the change.

T F 27. Unusual odours from electrical equipment can be the first sign of a potential fire.

T F 28. If the fire you are fighting begins to spread, leave the area and call for help.

T F 29. Use water extinguishers on energized electrical equipment.

T F 30. An Emergency Action Plan should designate people to evacuate all people with disabilities in the building.

T F 31. Fire drills are necessary to test the Emergency Action Plan.

T F 32. The last person to evacuate a room should lock the door to prevent vandalism or theft of equipment.

T F 33. Elevators may be used to evacuate a building as long as they remain operable.

T F 34. The power needed to turn on a light bulb is more than enough to kill a person.

Theory Test

Multiple Choice

1. B
2. B
3. B
4. C
5. B
6. B
7. A
8. D
9. B
10. B

True or False

1. True
2. False
3. True
4. True
5. False
6. True
7. True
8. True
9. True
10. True
11. True
12. True
13. True
14. True
15. True
16. False
17. True
18. True
19. False
20. True
21. False
22. True
23. False
24. True
25. True
26. False
27. True
28. True
29. False
30. True
31. True
32. False
33. False
34. True

Competency	Rating Scale				
	4	**3**	**2**	**1**	**0**
1. Check gauge on extinguisher.					
2. Remove pin.					
3. Stand off an appropriate distance from fire.					
4. Activate extinguisher.					
5. Use sweeping motion at base of fire until fire is extinguished.					
6. Back away from site of fire.					
Optional Refill extinguisher.					

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