



# NATURAL GAS EMERGENCIES QUIZ

Pre-Quiz

Post-Quiz

Score \_\_\_\_\_ out of 20 marks

## STUDENT INFORMATION

Name:

|  |
|--|
|  |
|--|

## COURSE INFORMATION

Course Name:

|  |
|--|
|  |
|--|

Instructor:

|  |
|--|
|  |
|--|

Date:

|  |
|--|
|  |
|--|

Enter the correct answer in the space provided. Questions are each worth 1 mark unless otherwise specified.

1. The largest constituent of natural gas is:
- a. Ethane
  - b. Methane
  - c. Butane
  - d. Propane
2. What is added to natural gas to create that “rotten egg” smell?
- a. Hydrogen sulfide
  - b. Mercaptan
  - c. Calcium Hypochlorite
  - d. Sodium Hydroxide
3. The range of flammability of natural gas in air is:
- a. 6% to 20%
  - b. 5% to 18%
  - c. 4% to 15%
  - d. 3% to 12%
4. Opening windows and doors to let natural gas escape is a very effective ventilation method.
- True (T)  
False (F)
5. Incomplete combustion of natural gas can be identified by:
- a. A bright blue flame
  - b. A dull red flame
  - c. A luminous yellow flame
  - d. A lack of visible flame
6. Which type of soil provides the least resistance to natural gas migrating upward from below ground?
- a. Porous
  - b. Loamy
  - c. Clay
  - d. Rock
7. In an emergency involving natural gas at a residence or business, the flow can be shut off by closing the shut off valve on the meter set. Once the emergency is over, anyone can turn the valve back on.
- True (T)  
False (F)
8. Natural gas carried in transmission lines differs from natural gas in distribution lines in that it is at a higher pressure and is usually unodourized.
- True (T)  
False (F)

9. Only gas utility personnel can operate an underground valve.  
True (T)  
False (F)
10. Complete the following statement: "Natural gas is non-toxic, it will however..."  
a. ...make it very difficult to see.  
b. ...lead to certain death if inhaled in any quantity.  
c. ...displace the oxygen we require to breathe.  
d. ...create long term respiratory effects.
11. Which of the following are sources of ignition with respect to natural gas?  
a. Light switch turned off and on  
b. Blackberries, flashlights, pagers  
c. Starting a vehicle and operating a doorbell  
d. All of the above
12. Select the correct property of natural gas:  
a. Natural gas has the same specific gravity as carbon monoxide  
b. Natural gas is heavier than air  
c. Natural gas is lighter than air  
d. Natural gas has an upper flammable range of 25%
13. To avoid ignition, any communications equipment or instrumentation operated while responding to a gas escape must be intrinsically safe or explosion proof.  
True (T)  
False (F)
14. Select the methods through which migrating natural gas can enter a building (2 marks):  
a. Through sewers and other utilities  
b. Through cracks in walls or building openings  
c. Only from appliances within the building in question  
d. It cannot as it is lighter than air
15. Natural gas pipeline fires should never be extinguished unless they pose an immediate threat to people or property.  
True (T)  
False (F)
16. If you encounter a broken plastic pipeline in the field, do the following:  
a. Make area safe and call the gas company  
b. Backfill the damage to suppress the leaking gas  
c. Bend the pipe over to stop the flow of gas  
d. None of the above
17. Which underground structures provide low resistance for escaping gas to travel a considerable distance from the source of the leak?  
a. Storm drains and sewers  
b. Telephone conduits  
c. Cable and electrical corridors  
d. All of the above
18. Identify which of the following are characteristics of natural gas (2 marks):  
a. Will travel the path of least resistance  
b. Rises and won't collect in low areas  
c. Always has a distinct odour  
d. Produces a lot of smoke when it burns