

# CHAPTER 6—GASES AND VAPORS

Due Sep 24 at 12:59pm	Points 10	Questions 5	Time Limit None
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## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	1,836 minutes	10 out of 10

❗ Correct answers are hidden.

Score for this quiz: **10** out of 10

Submitted Sep 23 at 3:04pm

This attempt took 1,836 minutes.

Question 1

2 / 2 pts

What is the main purpose of collecting a grab sample when analyzing air contaminants?

☐ To collect a quick sample as not to interfere with operations

☐ To collect a quick sample because accuracy is not vitally important for that given exposure

☐ Collect a sample that integrates the worker's exposure over a full shift

☒ Collect a relatively instantaneous sample, typically to be compared against ceiling limits

Question 2

2 / 2 pts

If you have a 1-L balloon of nitrogen gas at an initial temperature and pressure of 20 C and 760 mmHg and you take that balloon to the top of a mountain where the temperature and pressure are only 5 C and 650 mmHg, what is the new volume of nitrogen in the balloon in liters (assume no resistance to expansion from the balloon membrane)?

☐ 0.81

☒ 1.11

☐ 1.23

☐ 0.29

### Question 3

2 / 2 pts

If the airborne concentration of methanol (at NTP) is 1,000 ppm, what is the airborne concentration in mg/m<sup>3</sup> if the molecular weight of methanol is 32 g/mol?

☐ Not enough information to determine

☐ 764.1

☐ 0.8

☒ 1,309

### Question 4

2 / 2 pts

If the airborne concentration of perchloroethylene (at NTP) is 100 mg/m<sup>3</sup>, what is the airborne concentration in ppm if the molecular weight of perchloroethylene is 166 g/mol?

- ☐ 40.6
- ☐ 679
- ☒ 14.7
- ☐ Not enough information to determine.

### Question 5

2 / 2 pts

If you sampled for 4 hours and obtained a sample volume of 960 L, what was the flow rate in liters per minute?

- ☐ 4000
- ☐ Not enough information to determine.
- ☐ 240
- ☒ 4

Quiz Score: **10** out of 10