

Name \_\_\_\_\_

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

1) What is Reid vapor pressure?

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2) What is the difference between summer-blend and winter-blend gasoline?

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3) What is stoichiometric?

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4) What are the octane improvers that may be used during the refining process?

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5) What is vapor lock?

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6) What does the  $(R + M) \div 2$  gasoline pump octane rating indicate?

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## Answer Key

Testname: ENGINEPERF5\_SHORT5

1) The pressure of the gasoline vapor in a closed container measured at 100°F.

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2) The major difference is the volatility of the gasoline. Winter gasoline needs to have a higher RVP pressure to ignite at low temperatures, whereas summer gasoline requires a lower RVP to prevent vapors from forming in the fuel system.

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3) Stoichiometric is a ratio where all of the fuel is burned with all of the air. The Stoichiometric ratio varies according to the fuel used.

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4) Octane improvers added in the refining process include: Xylene, toluene, ethanol, methanol, tertiary butyl alcohol (TBA), as well as propane and butane.

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5) Vapor lock is a condition where vapors instead of liquid fuel is in the fuel system and can result in poor engine performance or even a no-start condition.

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6) The pump octane rating is the average of the fuel measured using the Motor and Research method.

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