

## Automotive Engines 10th

### Quiz 10B

**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question.

1. The most common diesel exhaust emission test used in local testing programs is \_\_\_\_\_. 1. \_\_\_\_\_
  - A) the opacity test
  - B) the exhaust temperature test
  - C) the paper test
  - D) a "Check Engine" light test
  
2. What color exhaust smoke occurs most often during cold engine starts because the smoke is usually condensed fuel droplets? 2. \_\_\_\_\_
  - A) Grey
  - B) Blue
  - C) White
  - D) Black
  
3. A diesel engine should produce at least \_\_\_\_\_ psi of compression pressure and all cylinders should be within 50 psi of each other. 3. \_\_\_\_\_
  - A) 150
  - B) 250
  - C) 300
  - D) 450
  
4. The fuel pressure in a common rail diesel injection system can be as high as \_\_\_\_\_. 4. \_\_\_\_\_
  - A) 600 psi
  - B) 60 psi
  - C) 20,000 psi
  - D) 56 psi
  
5. The process of purging soot from a diesel particulate filter is called \_\_\_\_\_. 5. \_\_\_\_\_
  - A) regeneration
  - B) regulation
  - C) sooting
  - D) heating
  
6. What percent of opacity means the exhaust has no visible smoke and does not block light from a beam projected through the exhaust smoke? 6. \_\_\_\_\_
  - A) 0%
  - B) 25%
  - C) 50%
  - D) 100%
  
7. The three phases of diesel ignition include \_\_\_\_\_. 7. \_\_\_\_\_
  - A) glow plug ignition, fast burn, slow burn
  - B) slow burn, fast burn, slow burn
  - C) ignition delay, rapid combustion, controlled combustion
  - D) glow plug ignition, ignition delay, controlled combustion

8. Which of these takes place during regeneration in a diesel particulate filter (DPF)? 8. \_\_\_\_\_
- A) The oxygen sensor is being cleaned
  - B) Soot is being burned
  - C) EGR system is being actively tested
  - D) Catalytic converter is being purged
9. What diesel emission test measures the percentage of light that is blocked by the exhaust smoke? 9. \_\_\_\_\_
- A) Opacity test
  - B) Pop test
  - C) Snap acceleration test
  - D) Rolling acceleration test
10. How is diesel fuel ignited in a warm diesel engine? 10. \_\_\_\_\_
- A) Glow plugs
  - B) Heat of compression
  - C) Spark plugs
  - D) Distributorless ignition system

## Answer Key

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6. A  
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