

## Automotive Engines 10th

### Quiz 34B

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

1. Technician A says that studs should be installed finger tight. Technician B says that studs must be installed using a thread locker such as Loctite. Which technician is correct? 1. \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B
  
2. What would happen if oil or water (coolant) was at the bottom of a dry hole in the bolt when the head bolts are installed and torqued? 2. \_\_\_\_\_
  - A) Block could crack
  - B) Bolt would break
  - C) Liquid would be forced upward and out of the hole
  - D) Either B or C
  
3. Technician A says to be sure the piston notch "front" or arrow points toward the front of the engine. Technician B says to be sure that the piston ring gaps all line up before installing the piston. Which technician is correct? 3. \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B
  
4. An engine dynamometer measures \_\_\_\_\_. 4. \_\_\_\_\_
  - A) torque
  - B) horsepower
  - C) both horsepower and torque
  - D) fuel economy
  
5. What can happen if gasket surfaces are too smooth? 5. \_\_\_\_\_
  - A) Gasket can move out of proper location, causing leakage
  - B) Gasket will not be able to seal the deep grooves in the surface
  - C) Nothing will happen
  - D) Gasket will seal with no leaks
  
6. Two technicians are discussing the torquing process of head bolts. Technician A says that they should be tightened starting at the center of the head and working toward the ends. Technician B says that they should be tightened in three steps or according to the factory specified manner if torque-to-yield or torque-angle. Which technician is correct? 6. \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B

7. The cylinder head bolts should be tightened (torqued) by which of these sequences? 7. \_\_\_\_\_
- A) Four outside bolts first, then from the center out
  - B) From the outside bolts to the inside bolts
  - C) From the inside bolts to the outside bolts
  - D) Starting at the front of the engine and torquing bolts from front to rear
8. A coating often used to keep an engine from rusting during assembly is called \_\_\_\_\_. 8. \_\_\_\_\_
- A) engine oil
  - B) assembly lube
  - C) fogging oil
  - D) penetrating oil
9. If the torque and horsepower readings are graphed, where do the curves cross (equal each other)? 9. \_\_\_\_\_
- A) Never
  - B) At peak horsepower, which can vary from engine to engine
  - C) At peak torque, which can vary from engine to engine
  - D) At 5,252 RPM
10. Technician A says that the piston and rod assembly should be installed in the cylinder after being carefully fitted for each bore. Technician B says that connecting rod side clearance should be checked with a feeler (thickness) gauge. Which technician is correct? 10. \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians A and B
  - D) Neither technician A nor B

## Answer Key

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1. C  
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2. A  
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3. A  
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4. A  
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5. A  
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6. C  
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7. C  
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