

Automotive Engines 10th

Quiz 27B

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

1. Flat-bottom valve lifters rotate during operation because of the _____ of the camshaft. 1. _____
 - A) taper of the lobe
 - B) thrust plate
 - C) chain tensioner
 - D) bearings

2. Technician A says that silent chains are quieter than roller chains and do not stretch with use. Technician B says that on overhead valve engines, the camshaft is usually placed in the block above the crankshaft. Which technician is correct? 2. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

3. Hydraulic lifters or hydraulic lash adjusters (HLA) may not bleed down properly and could cause an engine miss if _____. 3. _____
 - A) the engine oil is 1 quart low
 - B) the wrong API-rated engine oil is used
 - C) the wrong SAE-rated engine oil is used
 - D) Both A and B

4. What determines the amount of valve overlap? 4. _____
 - A) Total lift in degrees
 - B) Cam lobe accuracy
 - C) Camshaft design
 - D) Timing gears or chain

5. A camshaft is hardened during manufacturing to a typical depth of _____ inch. 5. _____
 - A) 1/8
 - B) 0.001 to 0.006
 - C) 0.42 to 0.60
 - D) None of these

6. The maximum total indicator runout (TIR) of a camshaft should be less than _____. 6. _____
 - A) 0.002 in.
 - B) 0.006 in.
 - C) 0.004 in.
 - D) 0.008 in.

7. Technician A says that valve overlap is the number of crankshaft degrees that both valves are closed. Technician B says that valve overlap occurs when the piston is at or near TDC. Which technician is correct? 7. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor b

8. The timing chain in an engine uses a _____ on the _____ side of the chain to maintain correct chain tension. 8. _____
- A) tension screw; loaded
 - B) short rod; unloaded
 - C) hydraulic tensioner; loaded
 - D) spring tensioner; unloaded
9. The valves could be bent if the timing belt breaks on which of these? 9. _____
- A) Freewheeling engine design
 - B) In-block cam engine
 - C) Interference engine design
 - D) Undersquared engine
10. Which timing chain type is also called a "silent chain"? 10. _____
- A) Roller
 - B) Morse
 - C) Flat link
 - D) Both B and C

Answer Key

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1. A
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2. B
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3. C
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4. C
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5. B
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6. A
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7. B
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8. D
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9. C
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