

Name _____

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

- 1) Umbrella-type valve stem seals _____. 1) _____
A) Fit tightly onto the valve guide
B) Fit on the valve face to prevent combustion leaks
C) Fit tightly onto the valve stem
D) Lock under the valve retainer
- 2) Technician A says that a pilot is placed into the valve guide to position the stone or cutter correctly for resurfacing the valve seat. Technician B says that he installed height should be checked and corrected with oversized valves, if needed. Which technician is correct? 2) _____
A) Technician A
B) Technician B
C) Both technicians
D) Neither technician
- 3) If an interference angle is machined on a valve or seat, the angle is usually _____. 3) _____
A) 1 degree
B) 0.005 degree
C) 1-3 degree
D) 0.5-0.75 degree
- 4) A valve seat should be concentric to the valve guide to a maximum TIR (total indicator runout) of _____. 4) _____
A) 0.006 in.
B) 0.004 in.
C) 0.002 in.
D) 0.0015 in
- 5) Valve spring inserts (shims) are designed to _____. 5) _____
A) Increase installed height of the valve
B) Decrease installed height of the valve
C) Adjust the correct valve spring installed height
D) Decrease valve spring pressure to compensate for decreased installed height
- 6) Technician A says that all valves rotate to help prevent the valves and seats from burning. Technician B says that positive type valve rotators are only used on intake valves. Which technician is correct? 6) _____
A) Technician A
B) Technician B
C) Both technicians
D) Neither technician

- 7) Dampers (damper springs) are used inside some valve springs to _____. 7) _____
- A) Prevent valve spring surge
 - B) Keep the valve spring attached to the valve
 - C) Decrease valve spring pressure
 - D) Retain valve stem seals
- 8) In a normally operating engine, intake and exhaust valves are opened by a cam and closed by _____. 8) _____
- A) Rocker arms or cam follower
 - B) Valve springs
 - C) Lifters/tappets
 - D) Valve guides and/or pushrods
- 9) Without the use of leaded gasoline, how does the manufacturer keep the valves and seats from wearing out? 9) _____
- A) Sodium valves
 - B) Aluminum heads
 - C) Harder valves and seats
 - D) Lapping in the valves
- 10) The proper relationship between intake and exhaust valve diameter is _____. 10) _____
- A) Intake valve size is 85% of exhaust valve size
 - B) Exhaust valve size is 85% of intake valve size
 - C) Exhaust valve size is 38% of intake valve size
 - D) Intake valve size is 45% of exhaust valve size

Answer Key

Testname: ENGINES9_27B

1) C

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2) A

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3) A

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4) C

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5) C

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6) D

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7) A

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8) B

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9) C

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10) B

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