

Automotive Engines 10th

Quiz 25B

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

1. Technician A says that an Audi five-valve engine uses three intake valves and two exhaust valves. Technician B says that it uses three exhaust valves and two intake valves. Which technician is correct? 1. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technician A and B
 - D) Neither technician A nor B

2. Technician A says that the most commonly used combustion chamber types include hemispherical, and wedge. Technician B says that coolant and lubricating openings and passages are located throughout most cylinder heads. 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. Two technicians are discussing a Hemi engine. Technician A says that a Hemi is an engine with a hemi-spherical shaped combustion chamber. Technician B says that all Hemi engines are cam-in-block designs. Which technician is correct? 3. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technician A and B
 - D) Neither technician A nor B

4. Valve stem-to-guide clearance is usually _____ for an exhaust valve. 4. _____
 - A) 3 to 5 mm
 - B) 0.001 to 0.003 inch
 - C) 0.05 to 0.1 mm
 - D) None of these

5. Cylinder head intake ports connect the _____ to the intake valves. 5. _____
 - A) cam lifter
 - B) intake manifold
 - C) coolant passages
 - D) shrouds

6. Technician A says that the only valve guide repair option for integral valve guides is to use oversize-stem valves. Technician B says that valve guides should be checked for wear using a ball gauge or a dial indicator. 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. Which type of valve guide is most used in a cast-iron head? 7. _____
- A) Integral
 - B) Bronze
 - C) Powdered metal (PM)
 - D) Thin-wall sleeve type
8. Why should the intake manifold alignment be checked on a V-type engine if the cylinder head gasket surface is ground? 8. _____
- A) To ensure that the intake manifold gaskets provide a good seal
 - B) To match the ports to the gaskets
 - C) The heads may not fit the block
 - D) All of the above
9. Typical intake valve stem-to-guide clearance is _____. 9. _____
- A) 0.030 to 0.045 inch (0.8 to 0.10 mm)
 - B) 0.015 to 0.020 inch (0.4 to 0.5 mm)
 - C) 0.005 to 0.010 inch (0.13 to 0.25 mm)
 - D) 0.001 to 0.004 inch (0.025 to 0.076 mm)
10. Removal of excessive material from the block or cylinder head during machining can cause valve timing to be _____ on an overhead cam engine. 10. _____
- A) shortened
 - B) advanced
 - C) normal
 - D) retarded

Answer Key

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