

Name _____

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

- 1) A warped aluminum cylinder head can be restored to useful service by _____. 1) _____
A) Grinding the gasket surface and then align honing the camshaft bore
B) Heating in an oven at 500°F with shims under each end, allowing it to cool, and then machining it
C) Heating it to 500°F for 5 hours and cooling it rapidly before final machining
D) Machining the gasket surface to one-half of the warped amount and then heating the head in an oven and allowing it to cool slowly
- 2) When servicing a cylinder head, which of these operations should be performed first? 2) _____
A) Installing replacement guides
B) Resurfacing the head
C) Grinding the valves
D) Grinding the seats
- 3) 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? 3) _____
A) Technician A
B) Technician B
C) Both technicians
D) Neither technician
- 4) Which type of valve guide is most used in a cast-iron head? 4) _____
A) Integral
B) Bronze
C) Powdered metal (PM)
D) Thin-wall sleeve type
- 5) In addition to intake and exhaust ports, what other ports or passages are cast into the cylinder head? 5) _____
A) Air ports
B) Resonator ports
C) Coolant passages
D) Gasket ports
- 6) Which of these statements is TRUE about surface finish? 6) _____
A) Cast-iron surfaces should be smoother than aluminum surfaces
B) The rougher the surface, the higher the microinch finish measurement
C) The smoother the surface, the higher the microinch finish measurement
D) A cylinder head should be much smoother than a crankshaft journal

7) The head gasket has failed on this engine (circled area). The failure allowed _____ to leak into the combustion chamber. 7) _____



- A) Engine oil
- B) Fuel
- C) Coolant
- D) Voltage

8) 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? 8) _____

- A) Technician A only
- B) Technician B only
- C) Both technician A and B
- D) Neither technician A nor B

9) What other engine component may have to be machined if the cylinder heads are machined on a V-type engine? 9) _____

- A) Exhaust manifold
- B) Intake manifold
- C) Block deck
- D) Distributor mount (if equipped)

10) For lowest hydrocarbon emissions, which of these engine design features is used?

10) _____

- A) Low combustion chamber surface area-to-volume ratio
- B) High combustion chamber surface area-to-volume ratio
- C) Non-centrally mounted spark plug
- D) Increased (as much as possible) quench area

Answer Key

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1) B

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2) B

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3) B

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4) A

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5) C

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6) B

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7) C

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8) A

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9) B

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10) A

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