

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Which material contains about 3% carbon (graphite), making it gray in color?
  - A. Steel
  - B. Die-cast aluminum alloy
  - C. Gray cast iron
  - D. Aluminum
  
2. Why is cast iron used to make engine blocks and cylinder heads?
  - A. Its high aluminum content provides strength.
  - B. It is easy to machine due to the carbon content.
  - C. It is lightweight and non-magnetic.
  - D. It has high steel content.
  
3. Which of the following properties does the graphite in cast iron possess?
  - A. Conductivity
  - B. Magnetism
  - C. Lubrication
  - D. Brittleness
  
4. What is the term for the large-diameter holes in the block casting that guide the pistons?
  - A. Tunnels
  - B. Passages
  - C. Bores
  - D. Channels
  
5. What purpose do the webs, walls, and drilled passages in the block serve?
  - A. To increase the weight of the block.
  - B. To contain the coolant and lubricating oil and keep them separated.
  - C. To facilitate easy mounting of other engine parts.
  - D. To provide aesthetic appeal.
  
6. Which components are used in the joints between the block and other engine parts to account for machining irregularities?
  - A. Lubricants
  - B. Gaskets or sealants
  - C. Carbon layers
  - D. Adhesives
  
7. What are core plugs also referred to as?
  - A. Bore plugs
  - B. Insert plugs
  - C. Freeze plugs
  - D. Engine plugs

8. What happens to the sand core during the casting process of a cast-iron cylinder block?

- A. It fuses with the cast iron.
- B. It is melted and recycled.
- C. It breaks up and is removed from the block.
- D. It hardens and becomes part of the block.

9. Why are core plugs seldom pushed outward if the coolant in the passages freezes?

- A. Because they are made of high-strength materials.
- B. Due to the presence of antifreeze solutions.
- C. Because of their tight fit and design.
- D. The name is misleading and doesn't reflect their function.

10. Which method is used to make engine blocks lightweight?

- A. Using high aluminum content
- B. Increasing the wall thickness
- C. Using high steel content
- D. Making the cast-iron block walls and bulkheads only as heavy as necessary

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Chapter 31

Multiple Choice Quiz B

Answer Key

1. C

2. B

3. C

4. B

5. B

6. B

7. C

8. C

9. D

10. D