Automotive Technology 7th Edition
Chapter 27
Multiple Choice Quiz B

Name: _____ Date: _____

1. Why are turbulence and a uniform mixture important for combustion?
A. They enhance the engine's noise output.
B. They ensure a more uniform and complete combustion.
C. They improve the engine's aesthetics.
D. They reduce the engine's power output.

2. What is the primary function of the squish area when the piston is moving upward?
A. To reduce the temperature of the combustion chamber.
B. To ignite the air-fuel mixture.
C. To rapidly push out the air-fuel mixture, causing turbulence.
D. To act as a barrier for the piston.

3. Which of the following is NOT a function of the cylinder head?
A. Supporting the valves and valve train.
B. Containing passages for coolant flow.
C. Igniting the air-fuel mixture.
D. Supporting the camshaft in overhead camshaft designs.

4. How does the quench area operate compared to the rest of the combustion chamber?
A. At higher temperatures.
B. At the same temperature.
C. At lower temperatures.
D. Temperature doesn't vary in the combustion chamber.

5. What is the result of the quench area operating at cooler temperatures?
A. The gasoline vapors evaporate quickly.
B. The gasoline vapors condense on these cooler surfaces.
C. The quench area becomes a hotspot for ignition.
D. The quench area becomes prone to rust.

6. In the context of the chapter, what does "porting (relieving)" refer to?
A. Adding more ports to the cylinder head.
B. Blocking existing ports in the cylinder head.
C. Modifying the ports to improve airflow and performance.
D. Cleaning the ports of any debris or contaminants.

7. What is the significance of the term "Stellite" in the context of the chapter?
A. It refers to a type of spark plug material.
B. It's a brand of cylinder head.
C. It's a type of alloy used for making durable valve seats.
D. It's a method of cylinder head cleaning.

8. What does "warpage" refer to in the context of cylinder heads?
A. The ability of the cylinder head to warp under high temperatures.
B. The distortion or bending of the cylinder head surface.
C. The design of the cylinder head ports.
D. The weight distribution of the cylinder head.

9. What is "Valve duration" in the context of engine operation?
A. The number of degrees by which the crankshaft rotates when the valve is off the valve seat.
B. The number of degrees by which the camshaft rotates when the valve is closed.
C. The time taken for the valve to completely open or close.
D. The overlap time when both intake and exhaust valves are open.

10. Which of the following statements accurately describes the combustion chamber's structure?
A. The combustion chamber is solely formed by the cylinder head.
B. The combustion chamber consists of the upper part made of the cylinder head and cylinder walls, and the lower part is the top of the piston.
C. The combustion chamber is the space between two adjacent pistons.
D. The combustion chamber is only defined by the shape and size of the piston.

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Answer Key

1. B

2. C

3. C

4. C

5. B

6. C

7. C

8. B

9. A

10. B