Automotive Technology 7th Edition
Chapter 32
Multiple Choice Quiz B

Name: _____ Date: _____

1. Which part of the crankshaft is offset from its centerline?
A. Main bearing journals
B. Flywheel flange
C. Counterweights
D. Rod bearing journals (crankpins)

2. What is the primary purpose of the counterweights on a crankshaft?
A. To add weight to the crankshaft.
B. To balance the crankshaft and reduce vibrations.
C. To provide lubrication channels.
D. To facilitate the mounting of other engine components.

3. In what condition does the crankshaft need to have an excellent surface finish?
A. When it is new.
B. After nitriding.
C. After undergoing repairs.
D. All of the above.

4. Which process can be used to improve the surface hardness of the crankshaft?
A. Electroplating
B. Nitriding
C. Lubrication
D. Polishing

5. What is the significance of the thrust bearing in the engine?
A. It supports rotational loads.
B. It supports vertical loads.
C. It supports thrust loads and maintains the front-to-rear position of the crankshaft.
D. It helps in reducing engine noise.

6. What is the function of the flywheel flange on the crankshaft?
A. To attach the crankshaft to the engine block.
B. To provide a mounting point for the flywheel.
C. To support the main bearings.
D. To act as a counterweight.

7. Which part of the crankshaft is directly connected to the connecting rods?
A. Main bearing journals
B. Counterweights
C. Rod bearing journals (crankpins)
D. Flywheel flange

8. Where are insert-type bearings NOT placed in relation to the crankshaft?
A. Between the crankshaft and the engine block.
B. Between the big end of the connecting rod and the crankpin of the crankshaft.
C. Between the main bearing caps and the crankshaft.
D. Between the flywheel and the crankshaft.

9. What is the primary function of the crankshaft's oil passages?
A. To balance the crankshaft.
B. To provide a route for fuel.
C. To cool the crankshaft.
D. To lubricate the crankshaft and its bearings.

10. Which of the following is a common method to improve the wear resistance of a crankshaft?
A. Case hardening
B. Electroplating
C. Tuftriding
D. Both A and C

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Answer Key

1. D

2. B

3. D

4. B

5. C

6. B

7. C

8. B

9. D

10. D