Automotive Engines: Theory & Servicing, 9th Edition
Quiz 31B

Name_____

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

1) Technician A says primary vibration is created by the slight differences in the inertia of the pistons between top dead center and bottom dead center. Technician B says secondary vibration is a strong low-frequency vibration caused by the movement of the piston traveling up and down in the cylinder. Which technician is correct? 1) _____
A) Technician A
B) Technician B
C) Both technicians
D) Neither technician

2) Bearing _____ occurs when a bearing shell is slightly above the parting surface of the bearing cap. 2) _____
A) Overlap
B) Crush
C) Cap lock
D) Interference fit

3) Technician A says that oil for the rod bearings comes from splash off the crankshaft. Technician B says that oil thrown from the crankshaft lubricates the piston. Which technician is correct? 3) _____
A) Technician A
B) Technician B
C) Both technicians
D) Neither technician

4) If any crankshaft is ground, it must also be _____. 4) _____
A) Shot peened
B) Chrome plated
C) Polished
D) Externally balanced

5) Crankshaft journals are checked for which of these? 5) _____
A) Out of Round
B) Taper
C) Both A and B
D) Neither A nor B

6) Which of these causes primary vibration? 6) _____
A) Harmonic balancer
B) Pistons
C) Flexplate
D) Flywheel

7) Why does a 4–cylinder engine have very little, if any, primary vibration? 7) _____
A) Uses a splayed crankshaft
B) Two cylinders fire at the same time, reducing the primary vibration
C) Two pistons traveling upward at the same time two pistons are traveling downward
D) Bore is small, reducing the primary vibration

8) Crankshafts should be stored by which of these methods? 8) _____
A) Any position
B) Standing or hanging
C) Standing or lying on its side
D) Leaning at a slight angle

9) The crankshaft journals have been turned. What size bearings should be installed? 9) _____
A) Standard
B) Oversize
C) Undersize
D) It makes no difference which size is installed

10) If bearing–to–journal clearance is doubled, how much oil will flow? 10) _____
A) One–half as much
B) The same amount if the pressure is kept constant
C) Double the amount
D) Four times the amount

Answer Key
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1) D
Page Ref: 460-461
2) B
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3) B
Page Ref: 456
4) C
Page Ref: 464
5) C
Page Ref: 463
6) B
Page Ref: 460
7) C
Page Ref: 460
8) B
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9) C
Page Ref: 467
10) D
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