

Automotive Engines 10th

Quiz 13A

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

1. A 5 ribbed serpentine belt should be tensioned at about _____. 1. _____
 - A) 75 to 100 lbs.
 - B) 45 to 60 lbs.
 - C) 150 lbs.
 - D) None of these

2. Technician A says that the radiator should always be inspected for leaks and proper flow before installing a rebuilt engine. Technician B says that overheating during slow city driving can be caused by a defective electric cooling fan. Which technician is correct? 2. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

3. What can be done to prevent air from getting trapped in the cooling system when the coolant is replaced? 3. _____
 - A) Pour the coolant into the radiator slowly.
 - B) Use a coolant exchange machine that draws a vacuum on the system.
 - C) Open the air bleeder valves while adding coolant.
 - D) Either B or C

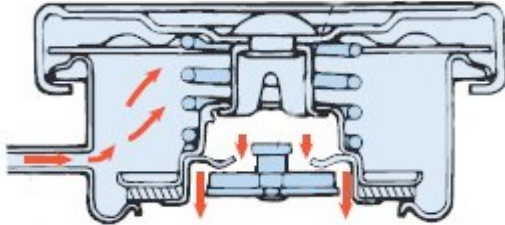
4. Which of these is the right procedure to use when refilling an empty cooling system? 4. _____
 - A) Determine capacity; fill with 50/50 coolant/water or pre-mixed coolant
 - B) Fill completely with antifreeze with a 50/50 mix in the overflow bottle
 - C) Fill block and one half of the radiator with 100% pure antifreeze and fill rest of with water
 - D) Fill radiator with antifreeze, start engine, drain the radiator, and refill with a 50/50 mixture of antifreeze and water

5. The water pump uses which of these reactionary forces actions to circulate the coolant? 5. _____
 - A) Magnetic force
 - B) Gravitational force
 - C) Centrifugal force
 - D) Centripetal force

6. The upper radiator hose collapses when the engine cools. What is the most likely cause? 6. _____
 - A) A defective upper radiator hose
 - B) The spring is missing from the upper radiator hose which is used to keep it from collapsing
 - C) A defective thermostat
 - D) A defective pressure cap

7. Technician A says that cooling fans are designed to draw air through the radiator to aid in the heat transfer process. Technician B says that drawing the heat from the coolant transfers this heat to the outside air through the radiator. Which technician is correct? 7. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

8. In this drawing of a radiator cap, what is occurring within the cooling system 8. _____



- A) The system is cooling down
 - B) The system is overheating
 - C) Coolant is returning to the radiator
 - D) Both A and C
9. A customer complains that the heater works sometimes, but sometimes only cold air comes out while driving. Technician A says that the water pump is defective. Technician B says that the cooling system could be low on coolant. Which technician is correct? 9. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B
10. Technician A says that the automotive water pump is a positive displacement-type pump. Technician B says that the coolant mix should be a 50/50 split between antifreeze and water. Which technician is correct? 10. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B

Answer Key

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1. A
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2. C
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3. D
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4. A
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5. C
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6. D
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7. C
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8. D
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9. B
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10. B
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