

Name _____

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

- 1) Two technicians are discussing the coolant flow through a heater core. Technician A says that heated coolant enters the heater inlet hose close to the engine thermostat. Technician B says the coolant from the heater core returns to the water pump outlet. Which technician is correct? 1) _____
A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

- 2) Heater function diagnosis should start with _____. 2) _____
A) Thermostat testing
B) Coolant condition and level
C) Heater belt tension
D) Hose clamp torque

- 3) Most HVAC systems will default to _____ if there is a failure in the control part of the system. 3) _____
A) Defrost
B) Floor heat
C) Full cold A/C
D) A/C only

- 4) How does a thermoelectric device (TED) work? 4) _____
A) Uses an electric current passed through coolant
B) A type of resistance heating
C) When electrical current flows through the module, one side is heated and the other side is cooled
D) Using a temperature-controlled thermostat in the cooling system to control coolant temperature

- 5) A heated seat cushion uses _____ to produce heat. 5) _____
A) Engine coolant
B) An electric heating element
C) 42 volt battery current
D) Friction

- 6) A customer complains that the heated steering wheel is not working. Which of these could be the cause? 6) _____
A) Loose horn buttons
B) Vehicle inside temperature above 32°C
C) A 0.150 volt drop on the ground wire
D) None of these

- 7) A typical vehicle heater works by _____. 7) _____
- A) Electrically controlling the thermostat
 - B) Making the A/C system operate in reverse using the evaporator as the heater
 - C) Heat transfers from the coolant, to the fins, and to the air passing through the core
 - D) Using hot coolant from the engine to heat the evaporator
- 8) After the water pump was replaced and the cooling system refilled with coolant, the heater stopped providing warm air. Which of these is the MOST LIKELY cause? 8) _____
- A) The wrong concentration of antifreeze was installed
 - B) An air pocket is trapped in the heater core
 - C) A defective heater control valve
 - D) A slipping water pump drive belt
- 9) The heating element is designed to warm the seat and/or back of the seat to about _____. 9) _____
- A) 50°F (10°C)
 - B) 70°F (21°C)
 - C) 90°F (32°C)
 - D) 100°F (38°C)
- 10) The heater core uses _____ to produce heat. 10) _____
- A) Engine coolant
 - B) An electric heating element
 - C) 42 volt battery current
 - D) Friction

Answer Key

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1) A

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2) B

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3) A

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4) C

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5) B

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6) B

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7) C

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8) B

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9) D

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10) A

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