

Name _____

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

- 1) Technician A says that exhaust manifolds can be made from hard plastic or aluminum. Technician B says that many intake manifolds have an EGR valve that regulates the amount of recirculated exhaust that enters the engine in order to increase NO_x emissions. Who is right? 1) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 2) Why do many port fuel injected engines use long intake runners? 2) _____
- A) To reduce exhaust emissions
 - B) To heat the incoming air
 - C) To increase high RPM power
 - D) To increase low RPM torque
- 3) Why is the catalytic converter placed as close to the engine as possible? 3) _____
- A) For easier access when working on the engine
 - B) So the heat can help the converter work most efficiently
 - C) To allow the exhaust pipes from the catalytic converter rearward to be as long as possible
 - D) To prevent the heat from the exhaust system moving upward toward the floor of the vehicle
- 4) A cracked exhaust manifold can cause false readings from which of these engine sensors? 4) _____
- A) Oxygen sensor
 - B) Coolant temperature sensor
 - C) Intake air temperature sensor
 - D) Exhaust temperature sensor
- 5) Some vehicles have no exhaust manifold and the catalytic converter is attached directly to the _____. 5) _____
- A) exhaust down pipe
 - B) cylinder head
 - C) engine block
 - D) muffler
- 6) Exhaust manifold gaskets are used to compensate for _____ in the exhaust manifold. 6) _____
- A) bolt hole sizes
 - B) slight warpage
 - C) misaligned flanges
 - D) cracks

- 7) Technician A says that some intake manifolds are plastic. Technician B says that some intake manifolds are constructed in two parts or sections: upper and lower. Which technician is correct? 7) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 8) Technician A says that a cracked exhaust manifold can affect engine operation. Technician B says that a leaking lower intake manifold gasket could cause a vacuum leak. Which technician is correct? 8) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 9) Air filters can remove particles and dirt as small as _____. 9) _____
- A) 5 to 10 microns
 - B) 10 to 25 microns
 - C) 30 to 40 microns
 - D) 40 to 50 microns
- 10) Technician A says that a cracked exhaust manifold can affect engine operation. Technician B says that a leaking lower intake manifold gasket could cause a vacuum leak. Which technician is correct? 10) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician