

Automotive Engines 10th

Quiz 19B

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

1. Why are the EGR gases cooled before entering the engine on some engines? 1. _____
 - A) Cool exhaust gas is more effective at controlling NO_x emissions
 - B) To help prevent the exhaust from slowing down
 - C) To prevent damage to the intake valves
 - D) To prevent heating the air-fuel mixture in the cylinder

2. Which of the following is/are terms for a variable intake manifold? 2. _____
 - A) Variable intake system (VIS)
 - B) Variable volume induction (VVI)
 - C) Dual-stage intake (DSI)
 - D) Any of the above

3. A variable intake manifold will have _____ intake runners at high RPM for _____ power. 3. _____
 - A) long; increased
 - B) short; balanced
 - C) long; decreased
 - D) short; increased

4. Air filters can remove particles and dirt as small as _____. 4. _____
 - A) 5 to 10 microns
 - B) 10 to 25 microns
 - C) 30 to 40 microns
 - D) 40 to 50 microns

5. The intake manifold of a port fuel-injected engine does which of these? 5. _____
 - A) Uses a heater to heat the intake air
 - B) Uses a leaner air-fuel mixture than TBI
 - C) Contains only fuel
 - D) Contains only air

6. Exhaust passages are included in some intake manifolds. Technician A says that the exhaust passages are used for exhaust gas recirculation (EGR) systems. Technician B says that the upper intake is often called the plenum. Which technician is correct? 6. _____
 - A) Technician A only
 - B) Technician B only
 - C) Both Technicians A and B
 - D) Neither Technician A nor B

7. Technician A says that exhaust manifolds can be made from plastic or stainless steel. 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. 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. Technician A says that intake manifolds are always made of metal. Technician B says that some intake manifolds are constructed in two parts or sections, upper and lower. Which technician is correct? 8. _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician A nor B
9. Some systems also have a _____ sensor between the throttle body and the air cleaner. 9. _____
- A) air temperature
 - B) mass airflow (MAF)
 - C) exhaust gas sensor (EGS)
 - D) throttle position sensor (TPS)
10. A cracked exhaust manifold can cause false readings from which of these engine sensors? 10. _____
- A) Oxygen sensor
 - B) Coolant temperature sensor
 - C) Intake air temperature sensor
 - D) Exhaust temperature sensor

Answer Key

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