

- 10) Normal engine vacuum at idle is _____. 10) _____
 A) 17-21 in Hg B) 120 in Hg C) 3 PSI D) 3-6 in Hg
- 11) The low oil pressure warning light usually comes on _____. 11) _____
 A) Whenever the oil filter bypass valve opens
 B) Whenever an oil change is required
 C) Whenever the oil filter antidrainback valve opens
 D) Whenever oil pressure drops dangerously low (4 to 7 (psi))
- 12) Technician A says a low but steady idle vacuum reading indicates a sticking valve. Technician B says a fluctuating vacuum gauge reading indicates incorrect ignition timing. Which technician is correct? 12) _____
 A) Technician A only B) Technician B only
 C) Both Technicians A and B D) Neither Technician A nor B
- 13) While performing a cylinder leakage test, technician A says that 20% leakage is acceptable. Technician B says that a cylinder will show too much leakage if the piston is not at TDC on its compression stroke. Which technician is correct? 13) _____
 A) Technician A only B) Technician B only
 C) Both Technicians A and B D) Neither Technician A nor B
- 14) Red fluid is found leaking under a vehicle. What is the most likely source? 14) _____
 A) Transmission fluid B) Brake fluid
 C) Coolant D) Engine oil
- 15) Which is NOT a step in the cranking vacuum test? 15) _____
 A) Connect the vacuum gauge to a source of manifold vacuum.
 B) Crank the engine while observing the vacuum gauge
 C) Disable ignition or fuel injection
 D) Block the throttle wide open
- 16) A cylinder power balance test is performed. Cylinders 1, 2, and 3, all drop 175 RPM when disabled with a scan tool. Cylinder 4 drops 50 RPM when disabled. The following statements are all correct EXCEPT _____. 16) _____
 A) Cylinder 4 is much weaker than 1, 2, and 3.
 B) There may be a mechanical problem with cylinder 4.
 C) Cylinder 4 is much stronger than 1, 2, and 3.
 D) This test could also be conducted by grounding the plug wire for each cylinder.
- 17) Which of the following is LEAST likely to create a rattle sound? 17) _____
 A) Cracked flex plate B) Loose accessory mounts
 C) Broken harmonic balancer D) Loose belt tensioner
- 18) When performing a cylinder leakage test, the following statements are all correct EXCEPT _____. 18) _____
 A) Shop air should be applied through the spark plug hole.
 B) Air heard escaping through the tailpipe may indicate a defective exhaust valve.
 C) Shop air should be applied to the dipstick tube.
 D) Bubbles in the coolant may indicate a defective head gasket.

- 19) Which of the following is the *least likely* to cause an engine noise? 19) _____
- A) Loose accessory drive belt
 - B) Vacuum leak
 - C) Cracked exhaust manifold
 - D) Carbon on the pistons
- 20) Technician A says that a leaking head gasket can be checked using a chemical tester. Technician B says that a leaking head gasket can be found using an exhaust gas analyzer. Which technician is correct? 20) _____
- A) Technician A only
 - B) Technician B only
 - C) Both Technicians A and B
 - D) Neither Technician A nor B