**CDX Distance Learning**

**Exercise #6**

**2007 Honda CRV Service Information Challenge**

**Student Name:** Click or tap here to enter text.

Using the demo vehicle that is available at Identifix ([**Link**](https://www.identifix.com/test-drive/)), answer the following questions regarding the 2007 Honda CRV EX 2.4 L.

1. Use the service information. What is the oil capacity, including the oil filter, when conducting an oil change for the 2.4 L engine that is present in this CRV?
2. 4.2 L [ ]
3. 5.3 L [ ]
4. 4.0 L [ ]
5. 4.8 L [ ]
6. Use the service information. What is the service bulletin number that relates to Battery Testing and Replacement for this CRV?
	1. 88-028 [ ]
	2. 88-023 [ ]
	3. 89-003 [ ]
	4. 89-005 [ ]
7. Use the service information. What is the 2.4 L engine’s ignition firing order?
	1. 1243 [ ]
	2. 1324 [ ]
	3. 1342 [ ]
	4. 1234 [ ]
8. When changing the spark plugs on any engine, what must the technician look at before installing the spark plugs?
	1. Spark plug ceramic color [ ]
	2. Spark plug shape [ ]
	3. Spark plug electrode gap [ ]
	4. Spark plug location on the engine [ ]
9. When conducting a compression test on an engine, the technician should be looking for a minimum and maximum compression pressure. Using the service information, what is the minimum compression pressure that this 2.4 L engine should make so it can be determined that the cylinder is working correctly?
	1. 200 psi [ ]
	2. 135 psi [ ]
	3. 155 psi [ ]
	4. 100 psi [ ]
10. When testing an alternator on a charging complaint, the technician should be looking for the amount of amps the alternator is outputting. Using the service information, what is the alternator output for this 2007 Honda CRV with a 2.4 L engine?
	1. 100 amps [ ]
	2. 105 amps [ ]
	3. 135 amps [ ]
	4. 150 amps [ ]
11. The Powertrain Control Module (PCM), operates the engine’s fuel, ignition, and transmission systems to make the vehicle move. When there is a fault within one of the systems, a diagnostic trouble code (DTC) is generated. Using the service information, what does a P0125 DTC refer to?
	1. Engine TPS sensor fault [ ]
	2. Engine ECT sensor malfunction [ ]
	3. Engine MAP sensor malfunction [ ]
	4. Engine MAF sensor malfunction [ ]
12. A lot of vehicles use a body control module to control various systems within the cabin and vehicle theft systems. In the Honda that is the subject of this assessment, the body module is called a Multiplex Integrated Control Unit (MICU). The MICU has set a B1280 code that must be diagnosed. Using service information, what does the B1280 code refer to?
	1. Vehicle theft system fault [ ]
	2. Interior light system fault [ ]
	3. Turn signal switch malfunction [ ]
	4. Headlight bulb failure [ ]
13. The cooling systems on vehicles are pressurized to increase the boiling point of the cooling system. For every pound of pressure, it raises the boiling point of the coolant by 3 degrees. For example: 10 psi radiator cap = 30° F increase of boiling point. Using the service information for this 2007 Honda CRV, at what pressure would the radiator cap release pressure?
	1. 10.2–12.5 psi [ ]
	2. 12.6–13.2 psi [ ]
	3. 13.5–17.8 psi [ ]
	4. 15.2–16.5 psi [ ]
14. When looking at front brake rotors the technician is looking for a thickness specification (along with other specifications) to see if the rotors are serviceable. If the rotors are out of specification, they will need to be replaced. Using the service information, what is the rear rotor standard or new thickness specification?
	1. 8.9–9.1 mm [ ]
	2. 27.8–28.1 mm [ ]
	3. 10.1–11.2 mm [ ]
	4. 11.3–11.8 mm [ ]
15. When refilling a cooling system with coolant, not just any coolant will do, it must be what is required by the vehicle. Mixing two different types of coolants can degrade the coolant, which means it will lose its protection qualities. Using the service information for the 2007 Honda CRV, what type of coolant must be used to maintain coolant integrity?
	1. Honda specialized application coolant [ ]
	2. Honda long life antifreeze/coolant type 2 [ ]
	3. Honda CRV red coolant [ ]
	4. Honda green IAT coolant [ ]
16. The engine fuel injection system requires a specific fuel injection pressure to ensure that the engine is getting the proper fuel to each cylinder. If the fuel pressure is not within the specifications, the engine may run lean and then cause running issues for the vehicle operator. Using the service information, what is the fuel pressure for the 2007 Honda CRV with a 2.4 L engine?
	1. 30–60 psi [ ]
	2. 50–75 psi [ ]
	3. 47–54 psi [ ]
	4. 40–46 psi [ ]
17. The thermostat is used on a vehicle to slow the flow of the coolant in the cooling system so that it has time to absorb the heat from the engine and then transfer that heat to the radiator. If the coolant is allowed to move through the cooling system uninhibited, the heat absorbing feature of the coolant cannot occur. For this reason, the thermostat was developed to slow the coolant and then slowly open to allow that coolant to move through other parts of the system. Using the service information for the 2007 Honda CRV, what is the temperature reading when the thermostat is fully opened?
	1. 85° C (185° F) [ ]
	2. 90° C (194° F) [ ]
	3. 88° C (190° F) [ ]
	4. 93° C (200° F) [ ]
18. The piston rings are used to seal the combustion chamber and keep the combustion event on top of the piston. With the explosion event happening, the metal surrounding the event (piston, piston rings, cylinder block, cylinder head) expands. The piston rings must be able to move within the piston ring lands as the piston moves in the cylinder. As they expand from the heat, there must be some space for them to expand. The piston end gap is that space, and it has a required amount of space for that expansion to take place. Using the service information for the 2007 Honda CRV with a 2.4 L engine, what is the piston ring end gap for the top ring?
	1. 0.15–0.20 mm [ ]
	2. 0.25–0.30 mm [ ]
	3. 0.20–0.35 mm [ ]
	4. 0.35–0.40 mm [ ]
19. When installing components on a vehicle, the torque of the associated bolts is an important aspect of the installation assembly. Without the proper torque the component may vibrate off or it may break the component as it moves around on the engine. Looking up and using the proper torque specifications will ensure that the component will live a long life. Using the service information for the 2007 Honda CRV 2.4 L, what is the torque specification for the spark plugs?
	1. 21.69 N·m (16 lbf-ft) [ ]
	2. 17.63 N·m (13 lbf-ft) [ ]
	3. 24.4 N·m (18 lbf-ft) [ ]
	4. 27.12 N·m (20 lbf-ft) [ ]
20. An automatic transmission operates from hydraulic pressure that is generated by the front pump in the transmission. The front pump is driven by the torque converter, which is driven by the engine's flexplate. If the transmission doesn’t develop enough pressure, the clutch packs will not operate properly. At times it is necessary to check the transmission line pressure to make sure the transmission front pump is creating enough pressure for the transmission to operate properly. Using the service information for the 2007 Honda CRV with a 2.4 L engine, what is the line pressure the transmission pump should make?
	1. 150 psi [ ]
	2. 135 psi [ ]
	3. 127 psi [ ]
	4. 115 psi [ ]
21. On a hydraulic power steering system, fluid level is crucial to the proper operation of the power steering system. If the system has a leak that lowers the level, the system will become strained and may not work properly. Using the service information for the 2007 Honda CRV, how much fluid does the power steering system require?
	1. 2 qts. [ ]
	2. 1.05 qts. [ ]
	3. 3.02 qts. [ ]
	4. 2.50 qts. [ ]
22. When an engine has an overheating or compression issue it may be related to cylinder head warpage. If the engine is operated in an over-temperature condition for an extended period, the cylinder head may become warped. When a cylinder head warps, the deck mimics a potato chip instead of a flat surface. When this happens coolant and oil can make their way into the combustion chamber. Burning coolant or oil will decrease the performance and increase the emissions of the engine. When repairing this issue, a cylinder head warpage check must be performed before bolting on the cylinder head to the cylinder block. Using the service information for the 20007 Honda CRV 2.4 L, what is the exact specification for cylinder head warpage?
	1. 0.01 mm warpage or less is acceptable [ ]
	2. 0.05 mm warpage or less is acceptable [ ]
	3. 0.10 mm warpage or less is acceptable [ ]
	4. 0.12 mm warpage or less is acceptable [ ]
23. The accessory drive belt on an engine is used to turn pumps, alternators, and other components to support engine operation. These belts are tensioned by automatic tensioners or are manually adjusted by the technician as the belt wears. Either way, the belt tension must be maintained to keep the components turning at the proper speed. Using the service information for the 2007 Honda CRV 2.4 L vehicle, what type of tensioner is present on this engine?
	1. Auto tensioner [ ]
	2. Manual tensioner [ ]
	3. Semi-manual tensioner [ ]
	4. No tensioner [ ]
24. A lot of rear parking brake assemblies use a shoe type of parking brake within the inside of the rear rotor. This allows the independent application of the parking brake and the foundation brakes. This parking brake system has specifications for the parking brake shoes so the technician knows when they need replaced. Using the service information for the 2007 Honda CRV, what is the parking brake shoe lining standard or new specification?
	1. 2.0 mm [ ]
	2. 1.8 mm [ ]
	3. 2.4 mm [ ]
	4. 3.0 mm [ ]