

Name \_\_\_\_\_

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

- 1) The primary (low-voltage) ignition system must be working correctly before any spark occurs from a coil. Which component is NOT in the primary ignition circuit? 1) \_\_\_\_\_  
A) Spark plug wires  
B) Ignition module  
C) Pick up coil  
D) Ignition switch
- 2) Technician A says that a two-wire COP system uses the PCM to trigger the coil. Technician B says that a three-wire COP system has an ignition module built into the coil assembly. Which technician is correct? 2) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 3) The ignition module has direct control over the firing of the coil(s) of an EI system. Which component(s) triggers (controls) the module? 3) \_\_\_\_\_  
A) Pickup coil  
B) Computer  
C) Crankshaft sensor  
D) All of the above
- 4) Which statement below is correct? 4) \_\_\_\_\_  
A) Coil on plug systems use one ignition coil per cylinder.  
B) All coil on plug systems require ignition wires.  
C) Ignition control circuits cannot sense the voltage required to fire a spark plug.  
D) It is not possible to control the ignition timing for each cylinder separately.
- 5) A reluctor is a \_\_\_\_\_. 5) \_\_\_\_\_  
A) type of sensor used in the secondary circuit  
B) notched ring or pointed wheel  
C) type of optical sensor  
D) type of Hall-effect sensor
- 6) Technician A says that the ignition timing cannot be adjusted on waste spark ignition systems. Technician B says that most waste spark systems use a crankshaft position sensor. Which technician is correct? 6) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician

- 7) Technician A says that the primary and secondary ignition systems are never connected. 7) \_\_\_\_\_  
Technician B says that the primary and secondary windings are connected in some ignition coils.  
Which technician is correct?
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 8) An ion-sensing ignition system allow the ignition system itself to be able to \_\_\_\_\_. 8) \_\_\_\_\_
- A) detect misfire
  - B) detect spark knock
  - C) detect rich or lean air-fuel mixture
  - D) all of the above
- 9) The pulse generator \_\_\_\_\_. 9) \_\_\_\_\_
- A) fires the spark plug directly
  - B) signals the electronic control unit (module)
  - C) signals the computer that fires the spark plug directly
  - D) is used as a tachometer reference signal by the computer and has no other function
- 10) Technician A says that a waste spark ignition system fires two spark plugs at the same time. 10) \_\_\_\_\_  
Technician B says that the waste spark ignition system uses ignition coils connected to  
companion cylinders. Which technician is correct?
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician