

Name \_\_\_\_\_

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

- 1) Ignition coil primary resistance is usually \_\_\_\_\_ ohms. 1) \_\_\_\_\_  
A) Zero  
B) 150-1500  
C) Less than 1 to 3  
D) 6,000-30,000
- 2) Technician A says that a defective spark plug wire can cause an engine miss. Technician B says that a defective spark plug can cause an engine miss. Which technician is correct? 2) \_\_\_\_\_  
A) Technician A  
B) Technician B  
C) Both technicians  
D) Neither technician
- 3) The pulse generator \_\_\_\_\_. 3) \_\_\_\_\_  
A) Fires the spark plug directly  
B) Signals the electronic control unit (module)  
C) Signals the computer that fires the spark plug directly  
D) Used as a tachometer reference signal by the computer and has no other function
- 4) When setting the ignition timing on a coil-on-plug ignition system, the technician must first \_\_\_\_\_. 4) \_\_\_\_\_  
A) Disconnect the SPOUT connector (Ford vehicles)  
B) Loosen the distributor lock plate  
C) Loosen the crankshaft position sensor bolts  
D) None of these; the timing cannot be adjusted
- 5) A no-start condition is being described on an engine equipped with a waste spark ignition system. Technician A says that a bad CKP (crankshaft position) sensor could be the cause. Technician B says that an open spark plug wire could be the cause. Which technician is correct? 5) \_\_\_\_\_  
A) Technician A  
B) Technician B  
C) Both technicians  
D) Neither technician
- 6) An ion-sensing ignition system has the ability to detect \_\_\_\_\_. 6) \_\_\_\_\_  
A) Cylinder misfire  
B) Engine knocking  
C) Air/fuel mixture  
D) Both A and B

- 7) Because of \_\_\_\_\_, an ignition coil cannot be fully charged (reach magnetic saturation) until after a delay of about 10 ms (milliseconds). 7) \_\_\_\_\_
- A) Voltage drop across the ignition switch
  - B) Resistance in the coil windings
  - C) Inductive reactance
  - D) Saturation
- 8) A compression-sensing ignition system uses a \_\_\_\_\_ type of ignition 8) \_\_\_\_\_
- A) Distributor
  - B) Coil-on-plug
  - C) Waste spark
  - D) All of the above
- 9) A DTC (Diagnostic Trouble Code) P0301 (misfire on cylinder 1) on a waste spark system could be caused by all of these, EXCEPT \_\_\_\_\_. 9) \_\_\_\_\_
- A) Open plug wire on cylinder 1
  - B) Open spark plug wire on cylinder 4 (companion to cylinder 1)
  - C) Defective #1 spark plug
  - D) Defective Pick-up coil
- 10) Technician A says that an engine will likely miss under load if the ignition coil is tracked. Technician B says that one wire of a waste spark coil must be grounded. Which technician is correct? 10) \_\_\_\_\_
- A) Technician A
  - B) Technician B
  - C) Both technicians
  - D) Neither technician

## Answer Key

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- 1) C  
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- 2) C  
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- 3) B  
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- 4) D  
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- 5) A  
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- 6) D  
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- 7) C  
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- 8) C  
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- 9) D  
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- 10) A  
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