Automotive Engine Performance, 5th Edition
Quiz 16A

Name_____

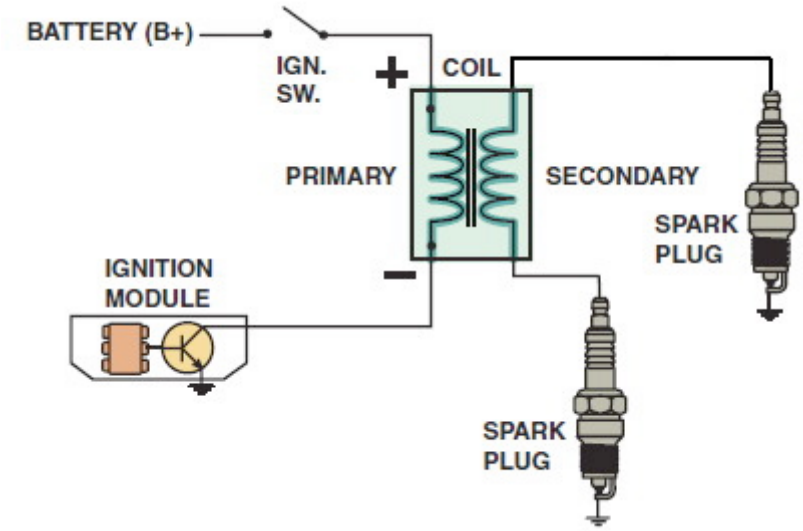
MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Which switching device uses LEDs? 1) _____
A) Optical sensor
B) Pickup coil
C) Hall effect
D) Magnetic reluctor

2) An ion–sensing ignition system allows the ignition system itself to be able to _____. 2) _____
A) Detect misfire
B) Detect spark knock
C) Detect rich or lean air–fuel mixture
D) All of the above

3) Which switching device used below is also called a "magnetic pulse generator"? 3) _____
A) Pickup coil
B) Hall–effect switch
C) Optical sensor
D) Ignition coil

4) Identify the type of ignition system shown in this diagram. 4) _____



A) Capacitor discharge system
B) Waste spark ignition system
C) Coil–on–plug ignition system
D) Distributor ignition system

5) Coil polarity is determined by the _____. 5) _____

A) Direction of rotation of the coil windings
B) Turns ratio
C) Direction of lamination
D) Saturation direction

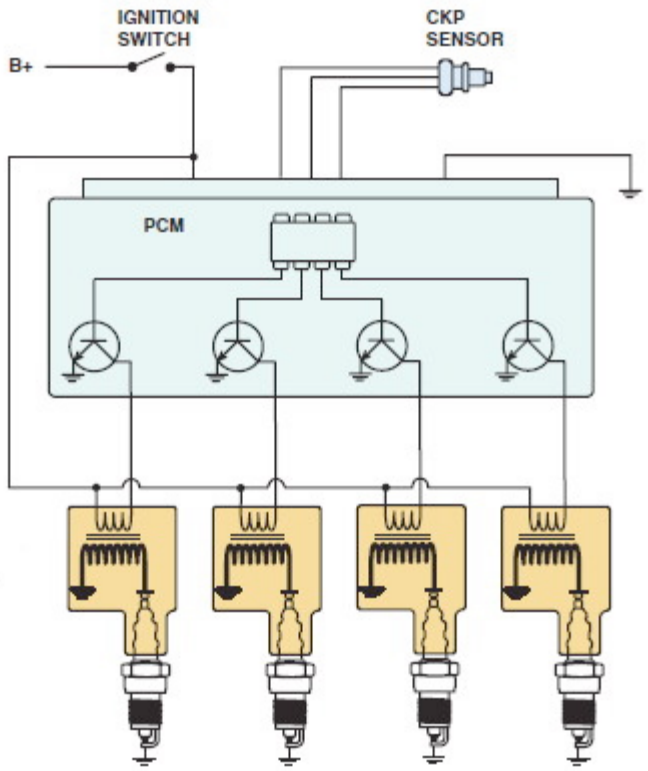
6) Which statement below is correct? 6) _____

A) Turning off the low voltage primary coil induces a high voltage in the secondary windings
B) Turning on the low voltage primary coil induces a high voltage in the secondary windings
C) No voltage is induced in the primary circuit
D) No voltage is induced in the secondary circuit

7) Which statement below is correct? 7) _____

A) Most ignition systems work by switching the circuit grounding the ignition coil's primary windings
B) Most ignition systems work by switching the circuit to power the ignition coil's primary windings
C) Most ignition systems work by switching the circuit grounding the ignition coil's secondary windings
D) Most ignition systems work by switching the circuit to power the ignition coil's secondary windings

8) Identify the type of ignition system shown in this diagram. 8) _____



A) Capacitor discharge system
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9) Two technicians are discussing distributor ignition. Technician A says that the pickup coil or optical sensor in the distributor is used to pulse the ignition module (igniter). Technician B says that some distributor ignition systems have the ignition coil inside the distributor cap. Which technician is correct? 9) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

10) Waste spark ignition systems are being discussed. Technician A says that it requires more voltage to fire the compression cylinder than the companion cylinder. Technician B says that waste spark systems using compression sensing electronics do not require a camshaft sensor for engine position. Which technician is correct? 10) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

Answer Key
Testname: ENGINEPERF5_16A

1) A
Page Ref: 266
2) D
Page Ref: 276
3) A
Page Ref: 263
4) B
Page Ref: 260
5) A
Page Ref: 261, 271
6) A
Page Ref: 262
7) A
Page Ref: 261
8) C
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9) C
Page Ref: 268
10) C
Page Ref: 271-272