Automotive Technology 7th Edition
Chapter 40
Multiple Choice Quiz B

Name: _____ Date: _____

1. Why is a high sampling rate preferred in a DSO?
A. It allows for a clearer display.
B. It can capture voltage changes over a very short period.
C. It reduces the power consumption of the DSO.
D. It increases the storage capacity of the DSO.

2. A scope has been described as "a voltmeter with a clock." What does the "clock" part signify?
A. It can measure time.
B. It displays voltage changes over a specific time period.
C. It can set alarms.
D. It can synchronize with other devices.

3. Which type of oscilloscope uses a cathode ray tube (CRT) to display voltage patterns?
A. Analog scope
B. Digital scope
C. Hybrid scope
D. None of the above

4. How does a digital scope display waveforms?
A. By capturing each change in voltage.
B. By capturing voltage levels over time and storing them as dots.
C. By projecting the waveform onto the screen.
D. By using lasers to trace the waveform.

5. What is an external trigger in the context of an oscilloscope?
A. A button on the oscilloscope.
B. A built-in function in the oscilloscope.
C. A type of waveform.
D. A signal from another external source.

6. How many grids does a typical scope face usually have vertically?
A. 5
B. 8 or 10
C. 12
D. 15

7. What is the advantage of a four-channel scope?
A. It can display the waveform from one sensor.
B. It can display the waveform from two separate sensors.
C. It allows the technician to view up to four different sensors or actuators on one display.
D. It can only display DC signals.

8. What does a 60% duty cycle indicate?
A. The signal is on 60% of the time and off 40% of the time.
B. The signal is on 40% of the time and off 60% of the time.
C. The signal is on 100% of the time.
D. The signal is off 100% of the time.

9. To observe a throttle position sensor waveform from 0 to 5 volts, the volts per division should be set to?
A. 0.5 V/div
B. 1.0 V/div
C. 2.0 V/div
D. 5.0 V/div

10. Which statement about the DC coupling setting on a DSO is correct?
A. It allows both the DC and AC signals of the waveform to be displayed.
B. It allows just the DC part of the waveform to be displayed.
C. It blocks both DC and AC signals.
D. It inverts the waveform.

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Answer Key

1. B

2. B

3. A

4. B

5. D

6. B

7. C

8. A

9. B

10. A