Automotive Electrical and Engine Performance, 8th Edition Chapter 30	
Name	
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.	
1) What harm can occur if the engine is cranked or run with an open (defective) spark plug wire?	
2) What are the sections of a secondary ignition scope pattern?	
3) Why should a spark tester be used to check for spark rather than a standard spark plug?	
4) What can the slope of the spark line indicate about the engine?	
5) How is a magnetic sensor tested for resistance and AC voltage output?	

## Answer Key

Testname: AEEP8\_SHORT30

1) If a spark plug is open (unplugged or disconnected) when the engine is being cranked or running, the high voltage produced inside the ignition coil can arc internally ruining the coil.

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2) The sections of a secondary ignition scope pattern include the firing line; spark line; intermediate section, the transistor on point and the transistor off point.

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3) A spark tester is the preferred tool to use to check the operation of the ignition system because it loads the ignition coil and forces it to produce at least 25,000 volts.

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- 4) The slope of the spark line can indicate the air fuel mixture present in the cylinder, as well as possible engine faults. Page Ref: 497
- 5) If the sensor is removed from the engine, hold a metal (steel) object against the end of the sensor. It should exert a strong magnetic pull on the steel object. If not, replace the sensor. Second, the sensor can be tested using a digital meter set to read AC volts.

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