

Name _____

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

- 1) A technician connects one lead of a digital voltmeter to the positive (+) terminal of the battery and the other meter lead to the battery terminal (B) of the starter solenoid and then cranks the engine. During cranking, the voltmeter displays a reading of 878 mV. Technician A says that this reading indicates that the resistance of the positive battery cable is too high. Technician B says that this reading indicates that the starter is defective. Who is right? 1) _____
- A) A only
 - B) B only
 - C) Both A and B
 - D) Neither A nor B
- 2) All of these can cause a starter not to rotate, EXCEPT _____. 2) _____
- A) Defective starter drive
 - B) Shorted field coils
 - C) Defective armature
 - D) Seized engine crankshaft
- 3) A voltage drop test on the starter control circuit is used to test which of these starter component(s)? 3) _____
- A) Wiring and connections
 - B) Field coils
 - C) Commutator
 - D) Starter solenoid and field coil
- 4) Slow cranking by the starter can be caused by all of these, EXCEPT _____. 4) _____
- A) A low or discharged battery
 - B) Corroded or dirty battery cables
 - C) Engine mechanical problems
 - D) Open neutral safety switch
- 5) With the armature removed from the starter motor, the field coils should be tested for opens and grounds using which of these tools? 5) _____
- A) Powered test light
 - B) Ohmmeter
 - C) Ammeter
 - D) Either A or B

6) The starter motor on a V-6 engine is being tested for starter amperage draw. The initial surge current was about 210 amperes and about 160 amperes during cranking. Technician A says that the starter is defective and should be replaced because the current flow exceeds 200 amperes. Technician B says that this is normal current draw for a starter motor for a V-6 engine. Which technician is correct?
 A) A only
 B) B only
 C) Both A and B
 D) Neither A nor B

6) _____

7) Technician A says that proper starter operation depends on the battery being at a 95% charge and battery cables being of the correct size (gauge) and having no more than 0.8-volt drop. Technician B says that voltage-drop testing includes cranking the engine, measuring the drop in voltage from the battery to the starter, and measuring the drop in voltage from the negative terminal of the battery to the engine block. Who is right?
 A) A only
 B) B only
 C) Both A and B
 D) Neither A nor B

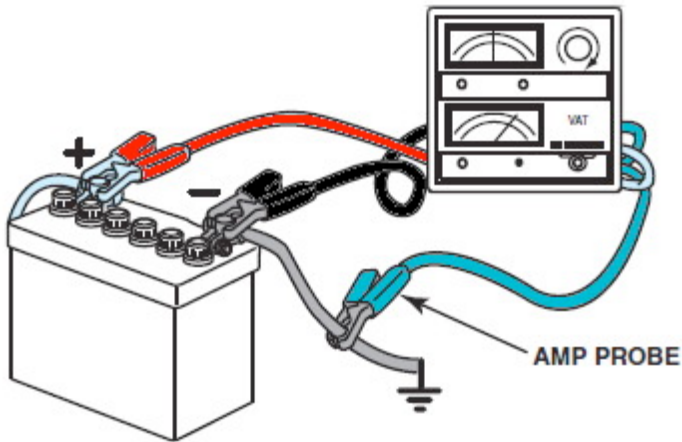
7) _____

8) What component or circuit can keep the engine from cranking?
 A) Antitheft
 B) Solenoid
 C) Ignition switch
 D) Any of the above

8) _____

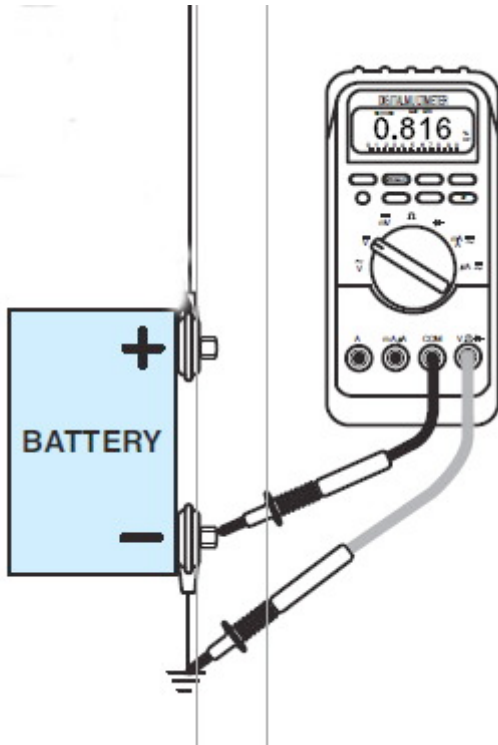
9) What test is being performed in this illustration?
 A) Starter amperage draw test
 B) Battery load test
 C) Ground side voltage drop test
 D) Positive side voltage drop test

9) _____



- A) Starter amperage draw test
- B) Battery load test
- C) Ground side voltage drop test
- D) Positive side voltage drop test

10) This voltage reading was obtained while cranking the engine. The indicated reading (0.816 V) is 10) _____



- A) Too high
- B) Too low
- C) An inconclusive measurement
- D) Incorrectly done

Answer Key

Testname: AAEE_10B

- 1) A
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- 2) A
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- 3) A
Page Ref: 117
- 4) D
Page Ref: 123
- 5) D
Page Ref: 121
- 6) B
Page Ref: 120
- 7) B
Page Ref: 117-118
- 8) D
Page Ref: 116
- 9) A
Page Ref: 119
- 10) A
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