

Name \_\_\_\_\_

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

- 1) All of these are part of the 3-minute charge test, EXCEPT \_\_\_\_\_. 1) \_\_\_\_\_
  - A) connect battery charger and voltmeter to the battery terminals
  - B) connect battery charger and ammeter to the battery terminals
  - C) charge the battery at a rate of 40 amperes for 3 minutes
  - D) at the end of three minutes, read the voltmeter
  
- 2) Many vehicle manufacturers recommend that a special electrical connector be installed between the battery and the battery cable when testing for \_\_\_\_\_. 2) \_\_\_\_\_
  - A) battery drain (parasitic drain)
  - B) specific gravity
  - C) battery voltage
  - D) battery charge rate
  
- 3) When load testing a battery, which battery rating is normally used to determine how much load to apply to the battery? 3) \_\_\_\_\_
  - A) CA
  - B) RC
  - C) MCA
  - D) CCA
  
- 4) Which of these is the most accurate test to determine the condition of a battery? 4) \_\_\_\_\_
  - A) Open circuit voltage (OCV) test
  - B) Hydrometer test
  - C) Load or capacity test
  - D) Voltage drop test
  
- 5) A defective battery causes which of the following symptoms? 5) \_\_\_\_\_
  - A) Slow cranking
  - B) Excessive voltage (over 16 volts)
  - C) Smooth, clean connectors, indicating overheating of the cables
  - D) None of these
  
- 6) What precautions are needed when charging an AGM type battery? 6) \_\_\_\_\_
  - A) Keep the charger away from the battery as far as possible.
  - B) Charging amperage should be set to less than 10 amperes.
  - C) Charging voltage should be at or below 14.4 volts.
  - D) Keep the charging time to less than one hour.
  
- 7) When charging a maintenance-free (lead-calcium) battery, \_\_\_\_\_. 7) \_\_\_\_\_
  - A) the initial charging rate should be about 35 amperes for 30 minutes
  - B) the battery may not accept a charge for several hours, yet still be a good (serviceable) battery
  - C) the battery temperature should not exceed 125°F (hot to the touch)
  - D) all of the above

- 8) Technician A says that distilled or clean drinking water should be added to a battery when the electrolyte level is low. Technician B says that fresh electrolyte (solution of acid and water) should be added. Which technician is correct? 8) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 9) Technician A says that electronic conductance testing can determine CCA, state-of-charge, and voltage of the battery. Technician B says that electronic conductance testing can determine if there is a bad cell, requiring battery replacement. Who is right? 9) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 10) All of these are required precautions when working around vehicle batteries EXCEPT \_\_\_\_\_. 10) \_\_\_\_\_
- A) no open flames around the battery
  - B) a frozen battery can be warmed by jump starting it
  - C) eye protection should be worn
  - D) disconnect the negative cable when working on electrical components

## Answer Key

Testname: AT6\_51B

1) B

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2) A

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3) D

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4) C

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5) A

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6) C

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7) D

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8) A

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9) C

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10) B

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