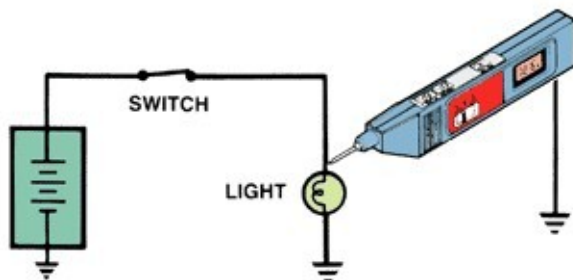


# Automotive Service Technician

1. Two technicians are discussing the replacement of a rebound or jounce bumper. Technician A says if a vehicle fails the jounce test the cause is a defective jounce bumper. Technician B says you need to remove the lower ball joint to replace the jounce bumper on an SLA (short arm long arm) suspension. Who is right?

- (A) A only  
(B) Both A and B  
(C) Neither A nor B  
(D) B only

2.



The lamp in the circuit above glows dimly. A voltmeter indicates 12.6 volts at the lamp. Technician "A" says that a bad ground at the lamp could be the cause. Technician "B" says that high resistance in the circuit from the battery to the lamp could be the cause. Who is correct?

- (A) Technician A only.  
(B) Neither Technicians A nor B.  
(C) Technician B only.  
(D) Both Technicians A and B.
3. On a car with single piston floating caliper disc brakes, the disc brake pad between the caliper piston and the rotor is badly worn. The other brake pad is slightly worn. Technician A says excessive rotor run out could be the cause. Technician B says insufficient clearance between the pads and caliper slider could be the cause. Who is right?

- (A) B only  
(B) Neither A nor B  
(C) Both A and B  
(D) A only

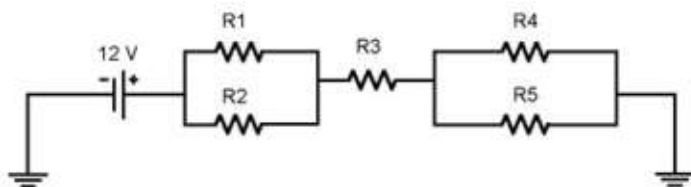
4. Technician A says that the torque converter lockup clutch provides a mechanical link between the engine and the transmission. Technician B says that when the lockup clutch is fully engaged, the turbine's speed matches the impeller's speed. Who is correct?

- (A) Tech B  
(B) Both  
(C) Neither  
(D) Tech A

# Automotive Service Technician

5. An A-type (Grounded-Regulator) charging system is full-fielded by connecting a jumper wire from the:
- (A) battery positive terminal to ground.      (B) alternator 'F' terminal to ground.  
(C) 'F' terminal of the regulator to battery positive terminal.      (D) battery positive terminal to the alternator battery terminal.
6. Crimp and seal splice sleeves should be used:
- (A) when you don't want to use electrical tape      (B) when a temporary repair is needed  
(C) when the insulation has been burned off the conductor      (D) when the circuit is exposed to the elements
7. Technician A says a mild parallel hybrid provides for regenerative braking, instant engine start-up, and a boost to the combustion engine. Technician B says a full parallel hybrid vehicle is capable of propelling the vehicle with only the electric motor. Who is correct?
- (A) Technician B only      (B) Neither Technician A nor B  
(C) Both Technician A and B      (D) Technician A only
8. An engine has recently begun using a lot of oil and the coolant is foamy and brown. Which of the following is likely to have caused this problem?
- (A) A cylinder head has been cracked.      (B) The oil-to-water cooler is leaking.  
(C) A head gasket has blown.      (D) Any of the above

9.



R1 = 12 ohms  
R2 = 12 ohms  
R3 = 6 ohms  
R4 = 12 ohms  
R5 = 4 ohms

Calculate the total current through R1.

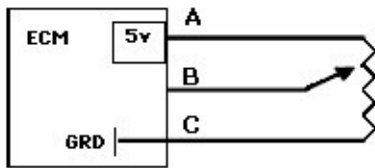
- (A) 0.2 A      (B) 0.4 A  
(C) 0.6 A      (D) 0.8 A

# Automotive Service Technician

10. A fuse burns out whenever the Brake pedal (stop light switch) is depressed, Technician A says a short circuit is present before the switch and a short finder is required. Technician B says the short circuit is complete when the switch is closed and must be after the switch. Who is correct?

- A Technician B only.
- B Technician A only.
- C Both Technicians A and B.
- D Neither Technicians A nor B.

11.



If this the picture above the Throttle Position Sensor (TPS), the computer would read this voltage and think the vehicle was:

- A at idle.
- B at cruise.
- C at W.O.T.
- D off.

12. Circuits that consist of a coil will allow \_\_\_\_\_ current flow at the instant the circuit first draws current.

- A minimum
- B zero
- C maximum
- D sustained

13. Describe the criteria used to determine whether a valve spring should be replaced based on its measured pressure.

- A A valve spring should be replaced if it measures below 70 lbs, which is 15% less than the new spring specification of 80 lbs.
- B A valve spring should be replaced if it measures below 76 lbs, which is 4% less than the new spring specification of 80 lbs.
- C A valve spring should be replaced if it measures below 75 lbs, which is 5% less than the new spring specification of 80 lbs.
- D A valve spring should be replaced if it measures below 72 lbs, which is 10% less than the new spring specification of 80 lbs.

