

# Automotive

## Section II (continued)

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### Question 19 (7 marks)

- (a) Why is it recommended that the earth lead be removed first and replaced last when disconnecting or connecting an automotive battery? 1

*to stop the battery discharging through you*

.....

.....

.....

- (b) What does CCA refer to in an automotive battery? 1

*cold cranking Amps*

.....

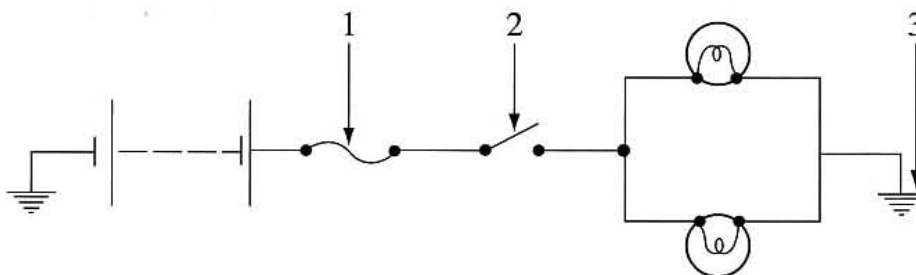
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**Question 19 continues on page 14**

Question 19 (continued)

(c) This diagram shows some components in an electrical circuit.

3

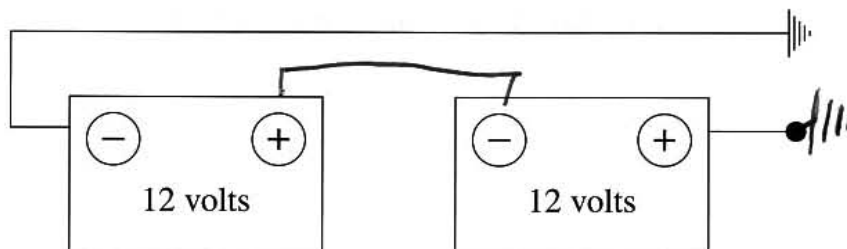


Complete the table naming and describing the function of each numbered component.

Component	Name	Function
1	Fuse	protects the circuit
2	Switch	turn the circuit on or off
3	Earth to Battery	completes the circuit

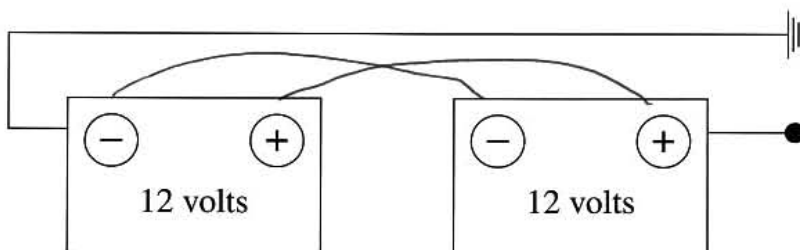
(d) In the diagram below, draw lines to show how to connect the terminals to increase battery output voltage to 24 volts.

1



(e) In the diagram below, draw lines to show how to connect the terminals to maintain battery output voltage at 12 volts.

1



End of Question 19