

# 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

Because the negative is what completes the circuit.

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

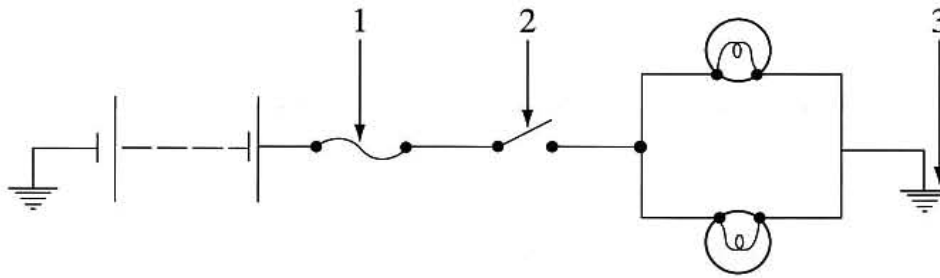
cold crank Amperage.

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Question 19 (continued)

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

3

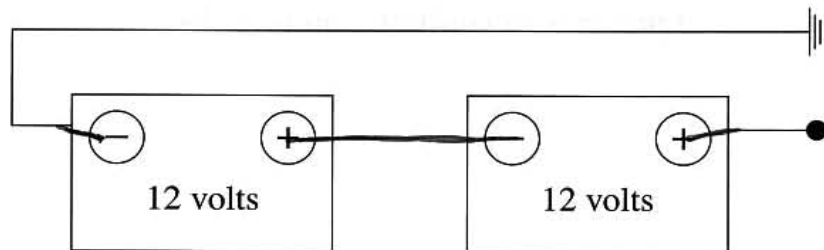


Complete the table naming and describing the function of each numbered component.

Component	Name	Function
1	Fuse	To protect against excessive current flow.
2	switch	To open or close the circuit.
3	Ground	To complete the circuit

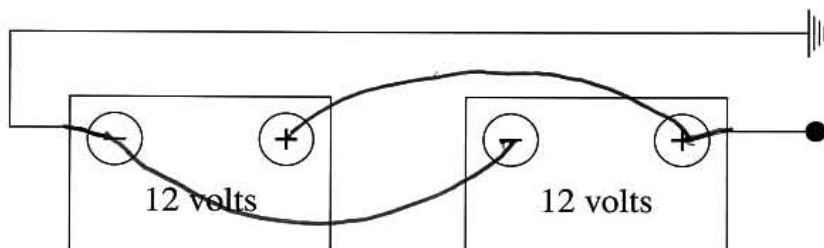
(d) In the diagram below, draw lines to show how to connect the terminals to increase battery output voltage to 24 volts.

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