

Automotive

Section II (continued)

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 prevent any sparks which could ignite hydrogen gas given off by battery

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

cold cranking AMPS

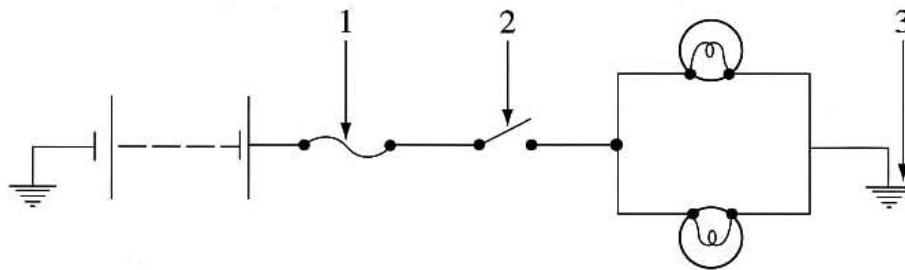
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Question 19 continues on page 14

Question 19 (continued)

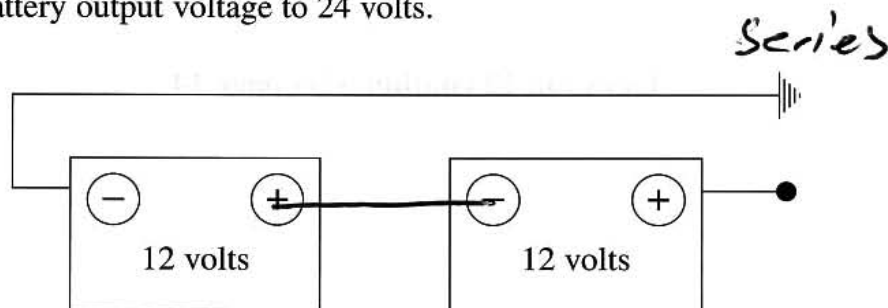
(c) This diagram shows some components in an electrical circuit.



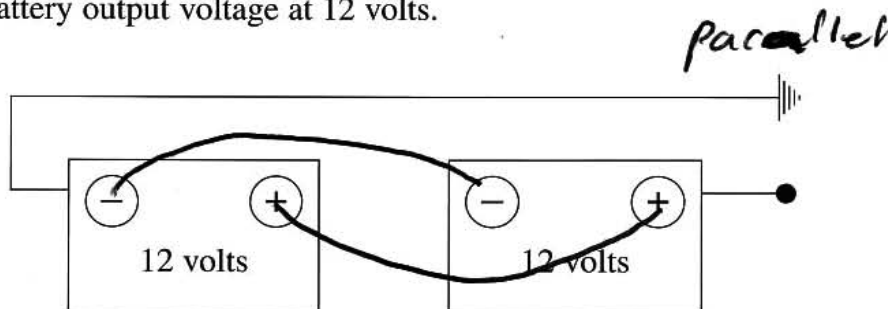
Complete the table naming and describing the function of each numbered component.

Component	Name	Function
1	<i>Fuse</i>	<i>to prevent too much current flow</i>
2	<i>Switch</i>	<i>to allow & break current flow</i>
3	<i>earth</i>	<i>completes connection & allows current flow</i>

(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