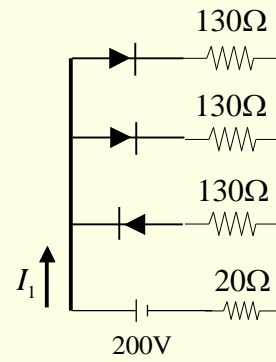


In the given figure, each diode has a forward bias resistance of 30Ω and infinite resistance in reverse bias. The current I_1 will be:

- (A) 3.75 A
- (B) 2.73 A
- (C) 2.35 A
- (D) 2 A

[Based on JEE Main 2021]

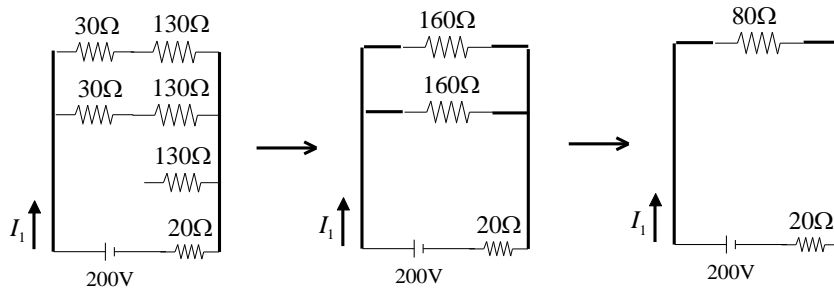


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Solution

Each of the forward biased diodes can be replaced by resistor of resistance 30Ω .

The reverse biased diode can be made open due to infinite resistance.



$$R_{eq} = 100\Omega$$

$$I_1 = \frac{200}{100} = 2A$$

Option (D).