Checking Two Solid Paths to One Current Meter

Scoring guide · one credit per question · review written work against each rubric

Checking Two Solid Paths to One Current Meter

Question 1

Choice (3)

With P opened, the total 2 mA is still carried by Q.

Question 2

The total is 8 mA with both paths and 6 mA with only P. Their difference is 2 mA, matching the separate Q reading.

Question 3

The solid ionic material supplies no mobile ions, leaving only 6 mA from P. In the melt, its branch carries 10 − 6 = 4 mA.

Question 4

Mobile electrons carry charge through the copper. Mobile positive and negative ions carry charge in the molten ionic material.