Ionic and Molecular Compounds Worksheet

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

Ionic and Molecular Compounds

Question 1

Choice (2)

One formula unit represents one Na^+ for each Cl^- in the crystal.

Question 2

In the solid, ions remain in fixed positions. In the melt, positive and negative ions can move and carry charge.

Question 3

Choice (1)

Solid carbon dioxide contains distinct CO_2 molecules with attractions between them.

Question 4

The solute may remain as neutral molecules. If it supplies few mobile ions, the solution has little ability to carry current.

Identifying Two Compound Models

Question 5

Choice (1)

P conducts much better when molten, consistent with mobile ions in the melt.

Question 6

Both solids show low conductivity. The measurements of the melts distinguish P from Q.

Question 7

Choice (2)

The ions can move through the molten ionic material and carry charge.

Question 8

Q has low conductivity as a solid and when molten. This fits a material composed of neutral molecules in both states with few mobile charge carriers.