Teacher Answer Key

Case Study

1. She started at 450°F, so strong radiation from the hot oven walls drove surface moisture off fast, and she ran convection for the last stretch, so moving air carried that moisture away instead of letting it sit. Skin can only pass 212°F once the water on it is gone, which is why both steps were needed.

2. Uncovering it let moisture escape instead of condensing back onto the top, and moving the rack up put the surface closer to the hot oven walls, which increased radiant heat on the crust specifically. The interior stayed custardy because that added heat reached the top surface rather than raising the temperature of the whole dish.

Multiple Choice

1. B

2. A

3. D

Matching

1-B, 2-D, 3-E, 4-C, 5-A

Fill-in-the-Blank

1) steam, 2) radiation, 3) moisture (accept: juices)

Short Answer (Sample Responses)

Q1: Spread vegetables to increase airflow (dry convection) and preheat the sheet for stronger conduction; finish on a higher rack to increase radiation from the element/walls.

Q2: Preheat a baking steel/stone to boost bottom conduction; start the pie on it, then move to a slightly higher rack or give a brief upper-rack finish to add gentle radiation for top color without overcooking the custard.

Q3: Basting adds water that must evaporate, pinning surface temperature near 212°F and cooling skin; this delays Maillard browning and lengthens total cook time.