Teacher Answer Key

Case Study

1. Evidence included 28 m of skid marks, event data showing high speed at braking, impact location in Driver B's lane, and Driver A's elevated BAC.

2. Long skid marks plus icy conditions and recorded speed showed late, fast braking; BAC results supported that Driver A's impairment contributed to poor decisions and delayed reaction.

Multiple Choice

1. B

2. A

3. B

Matching

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

Fill-in-the-Blank

1) reconstruction, 2) recorder, 3) field

Short Answer (Sample Responses)

Q1: Longer skid marks on a given surface mean more energy had to be lost, indicating higher starting speed; using the drag factor and formulas, investigators turn skid distance into a speed estimate.

Q2: Roadway: skid or yaw marks, swerving patterns; Inside vehicle: airbag deployment data, seat belt marks, or event data showing sudden braking or steering.

Q3: Reconstruction helps courts decide responsibility based on evidence, not guesses, and it teaches police, planners, and the public which behaviors—like speeding or driving drunk on icy roads—most often lead to serious crashes, supporting better laws and safety campaigns.