Teacher Answer Key

Case Study

1. Options: dedicated BRT lanes (trade-off: reallocate road right-of-way and potentially reduce car lane capacity vs improved transit reliability, higher people-moving capacity, and lower emissions) and park-and-ride expansion (trade-off: large land use and encouragement of driving to stations vs convenience for suburban commuters and potential rail ridership gains).

2. Equity benefit: dedicated bus lanes improve reliability and reduce travel time for transit-dependent and low-income riders, widening access to jobs and services and lowering travel cost burdens.

Multiple Choice

1. B

2. C

3. B

Matching

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

Fill-in-the-Blank

1) bus (or bike), 2) maintenance (or operating) cost, 3) transit-oriented development

Short Answer (Sample Responses)

Q1: Deferred maintenance often happens because political budgets prioritize visible new projects; routine upkeep is less visible and competes with capital expansion for limited funds.

Q2: Reallocating lanes for buses, bikes, and priority transit increases person-throughput per hour because high-occupancy modes carry more people than single-occupant vehicles in the same space.

Q3: Policies: subsidized fares for low-income riders, increased service frequency on routes serving disadvantaged neighborhoods, accessible infrastructure (low-floor buses, ramps, safe sidewalks), and targeted capital improvements in under-served areas.