Teacher Answer Key

Case Study

1. Drought reduces crop yields while tribute demands remain fixed, forcing farmers into impossible choices between feeding their families and meeting political obligations. This pressure to migrate rather than endure famine and tribute debt would have driven populations northward, contributing to city abandonment patterns archaeologists observe.

2. Chan Bahlum maintains drainage canals, monitors water levels, and practices multi-crop planting — sophisticated farming techniques requiring knowledge passed across generations. The tribute system shows centralized political control capable of extracting agricultural surplus from dispersed farming populations.

Multiple Choice

1. B

2. A

3. B

Matching

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

Fill-in-the-Blank

1) corn/maize, 2) aquaculture, 3) deforestation

Short Answer (Sample Responses)

Q1: Milpa farming cleared jungle, farmed for two or three years, then left fallow for a decade, requiring much more land at rest than in production at any time. LiDAR evidence of massive raised field networks and terrace systems showed the Maya supplemented milpa with intensive permanent cultivation, creating a mixed system far more productive than slash-and-burn alone.

Q2: Building and maintaining raised fields across hundreds of square kilometers required multi-generational community organization, labor coordination, and administrative capacity to plan and enforce collective work. Only a politically organized society with effective leadership could sustain this level of infrastructure.

Q3: The environmental evidence shows city abandonment was preceded by decades of deforestation, soil erosion, and drought — a gradual process driven by the Maya's own agricultural success creating population pressure. This shows 'collapse' was not

mysterious but was a predictable consequence of exceeding environmental carrying capacity.