Teacher Answer Key

Case Study

1. Coral bleaching occurs when rising temperatures stress corals, causing them to expel their zooxanthellae. Without these algae, corals lose color and energy.

2. Repeated bleaching reduces biodiversity, weakens reefs, and destabilizes ecosystems reliant on coral habitats.

Multiple Choice

1. D

2. B

3. A

Matching

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

Fill-in-the-Blank

1) Calcium carbonate, 2) Bell (or: umbrella-shaped body, medusa), 3) Zooxanthellae

Short Answer (Sample Responses)

Q1: Jellyfish blooms can reduce plankton populations, disrupt food chains, and compete with fish larvae, affecting fisheries.

Q2: Zooxanthellae photosynthesize inside coral tissue, giving corals nutrients and energy, while corals provide shelter and sunlight access.

Q3: Cnidarians lack organs and brains but succeed through stinging cells, symbiosis, and diverse life forms, making them efficient survivors.