Teacher Answer Key

Case Study

1. He compared local noon on the boat with Greenwich Mean Time, using a reliable chronometer, to calculate the difference in hours and thus determine longitude.

2. These skills can save lives if GPS fails or technology is damaged; they're a backup rooted in fundamental celestial and timing principles.

Multiple Choice

1. D

2. C

3. D

Matching

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

Fill-in-the-Blank

1) Parallels, 2) Equator, 3) Marine chronometer

Short Answer (Sample Responses)

Q1: Because meridians converge at the poles, they are widest at the Equator and tighten as they approach the poles.

Q2: Being the warmest region due to direct sunlight, the Equator influences prevailing wind patterns and ocean currents that define global climate zones.

Q3: They provide an international standard for identifying exact locations, ensuring consistent navigation, routing, and scheduling across distances.