Teacher Answer Key

Case Study

1. The fraudster likely gathered audio of the CEO from publicly available sources such as recorded interviews, conference presentations, or corporate announcements. A modern voice cloning system needs as little as one minute of audio to learn the target's distinctive voice characteristics, including pitch, cadence, and pronunciation. The system then applied those characteristics to generate speech of any text, producing a convincing imitation even to people who knew the CEO's voice well.

2. Individuals should establish a personal safe word or verification code with close contacts and family members. Organizations should implement policies requiring a second-channel verification for any unusual financial request or sensitive instruction, regardless of how convincing the caller sounds. Healthy skepticism toward any unexpected request involving money, sensitive data, or urgency, especially combined with claims that normal channels are unavailable, is also critical.

Multiple Choice

1. B
2. D
3. C

Matching

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

Fill-in-the-Blank

1) cadence, 2) Sora, 3) avatar

Short Answer (Sample Responses)

Q1: A voice cloning system analyzes a sample of the target person's audio and learns their distinctive characteristics, including pitch, rhythm, cadence, and acoustic quality. It encodes these as a voice style profile. When given text input, a text-to-speech model generates speech and the voice style component applies the target's learned characteristics, producing audio that sounds like the target person speaking the provided text.

Q2: AI generation and detection tools are in an ongoing arms race where each advance in detection leads to generation improvements that defeat those detectors. Modern voice and video synthesis systems are trained specifically to minimize the

artifacts that earlier detectors caught, such as unnatural blinking or edge blurring. The most sophisticated fakes now fool both human observers and automated tools, meaning no single detection method is reliable enough to use alone.

Q3: Individuals should establish code words with family members for emergency situations and always verify unusual calls through a different communication channel before acting. Organizations should implement multi-person approval requirements for financial transactions and train employees to recognize social engineering tactics like artificial urgency and claims that normal channels are unavailable. Treating any surprising or emotionally charged request with extra skepticism is also a valuable habit.