

Name _____

The Autonomous Revolution

Open-Ended Response Answer Key

1. Answer: I believe Level 3, conditional automation, is the most practical for everyday use. It allows the vehicle to handle most driving tasks, making daily commutes more convenient. However, it also requires the driver to be ready to take over, which ensures safety in complex situations.
2. Answer: The widespread adoption of Level 5 autonomous vehicles could revolutionize our daily lives. Commutes could become more efficient and stress-free, as there would be no need for manual driving. Transportation systems could become safer, with fewer accidents caused by human error. However, it might also impact industries like transportation and logistics and raise questions about job displacement.
3. Answer: Level 2 autonomy, partial automation, could be beneficial in situations like highway driving, where maintaining a constant speed and following distance is crucial. It can reduce driver fatigue during long journeys. However, it may be challenging in urban environments with complex traffic patterns, where the driver must remain engaged and attentive to sudden changes.
4. Answer: The top priority for ensuring the safety of autonomous vehicles should be rigorous testing and validation in various real-world scenarios. This is because autonomous vehicles need to prove their reliability in unpredictable situations. Additionally, cybersecurity measures to protect these vehicles from hacking should also be a priority, as any vulnerabilities can have severe consequences. Public awareness and education about the capabilities and limitations of autonomous technology are crucial for ensuring safe interactions between autonomous and human-driven vehicles.

