

1. ----, so that they can better understand inherited diseases and develop targeted treatments for affected individuals.

- A) The study of ancient fossils provides insight into the evolutionary history of various species
- B) Researchers analyze DNA sequences to identify specific genetic mutations linked to various medical conditions
- C) Genetic engineering has been a controversial topic due to ethical concerns and regulatory challenges
- D) Scholars believe that the discovery of the double helix structure of DNA revolutionized molecular biology in the 20th century
- E) Experts are of the opinion that environmental factors such as diet and lifestyle can influence how certain genes are expressed

2. While electric vehicles (EVs) are praised for their environmental benefits and lower operating costs, ----.

- A) charging stations are becoming increasingly common in urban areas and along highways
- B) advancements in battery technology have significantly improved the driving range of EVs
- C) limited charging infrastructure in rural regions remains a significant barrier to their widespread adoption
- D) many governments offer tax incentives to encourage the purchase of electric cars
- E) EVs produce zero tailpipe emissions, making them cleaner than traditional gasoline-powered vehicles

3. Because sugary foods and drinks feed the harmful bacteria in the mouth, ----.

- A) dentists recommend replacing metal fillings with composite alternatives
- B) fluoride treatments are mainly used for strengthening children's developing teeth
- C) orthodontic treatments like braces are often needed to correct misaligned teeth
- D) enamel erosion is a natural part of the aging process and difficult to avoid
- E) regular brushing and flossing are essential to prevent tooth decay and gum disease

4. Although the equinox occurs only twice a year, one in March and the other in September, ----.

- A) the Earth's axial tilt causes the variation in day length throughout the seasons
- B) it marks the moment when day and night are nearly equal in length all over the world
- C) the solstices are actually more significant in terms of seasonal change
- D) ancient civilizations often built monuments aligned with celestial events
- E) the position of the Moon also affects the occurrence of equinoxes

5. While traditional computers rely on binary bits to process information and would take thousands of years to solve certain encryption algorithms, ----.

- A) quantum computers, using qubits and the principles of superposition and entanglement, have the potential to crack such algorithms exponentially faster
- B) conventional computers operate using binary bits and would require millennia to break certain complex encryption algorithms due to their limited computational parallelism
- C) computer scientists still debate the ethical implications of artificial intelligence in modern software systems
- D) the use of encryption in everyday digital communication has become more widespread in recent decades
- E) the principles of classical physics continue to form the foundation of most computer architectures

6. Scientific research in the early 19th century was often driven by personal passion rather than financial gain, ----.

- A) because the Industrial Revolution created numerous practical applications for scientific knowledge
- B) yet scientific discoveries were quickly commercialized by industries seeking competitive advantages
- C) and universities across Europe began to offer structured programs in physics and chemistry
- D) as public funding for scientific endeavors was scarce and most researchers relied on private means or patronage
- E) even though private institutions began to emerge to support young inventors and entrepreneurs

7. Although scientific knowledge was expanding rapidly during the 19th century, ----.

- A) most scientists focused on philosophical rather than practical inquiries
- B) many researchers still struggled to secure consistent funding or institutional support
- C) scientific journals were becoming the primary way of sharing discoveries across Europe
- D) education reform led to the inclusion of science in school curricula for the first time
- E) the application of scientific methods was embraced by engineers and inventors alike

8. Farming has always required a deep understanding of natural cycles and local environmental conditions; ----.

- A) hence, modern industrial agriculture often prioritizes productivity over ecological balance, leading to long-term environmental issues
- B) although technological advances have improved yields, they cannot fully replace the value of traditional farming experience and intuition
- C) indeed, the agricultural wisdom passed down through generations remains essential for maintaining sustainable and resilient farming systems
- D) meanwhile, many farmers struggle to adapt to new regulations and climate shifts that affect planting and harvesting cycles
- E) nevertheless, government subsidies and innovations in irrigation have made large-scale farming more viable in regions facing drought

9. Dolphins exhibit remarkable intelligence and social behavior, yet their methods of communication are still not completely understood; -----.

- A) in contrast, dolphins' streamlined bodies allow them to swim at high speeds for long distances
- B) therefore, they rely heavily on echolocation to hunt and navigate in deep or murky waters
- C) in fact, researchers continue to debate whether their vocalizations constitute a form of language
- D) for instance, some dolphins have been observed helping injured members of their pod to breathe
- E) in addition, dolphins are often seen riding waves and engaging in playful activities near boats

10. Recycling is widely promoted as a solution to reduce environmental waste and conserve resources, -----.

- A) for instance, many households still lack access to proper recycling facilities, especially in low-income regions
- B) even so, public education campaigns have yet to correct widespread misconceptions about recyclable materials
- C) in reality, a large percentage of materials intended for recycling are contaminated or improperly sorted, rendering them unusable
- D) otherwise, government investment in recycling infrastructure would remain insufficient across different regions
- E) despite this, some companies have introduced new systems that reuse materials in their own production cycles

11. Some species of monkeys possess very efficient and prehensile tails, which serve functions beyond simple balance; ----.

- A) namely, they use their tails as a fifth limb to grasp branches, pick up objects, and stabilize themselves while feeding
- B) moreover, these monkeys often live in dense forests where agility is essential for survival
- C) however, other primates have evolved different adaptations for navigating tree canopies
- D) on the other hand, monkeys without prehensile tails rely more on their limbs and vision for movement
- E) in contrast, apes lack tails altogether, which distinguishes them from most monkey species

12. Although early humans lacked written language and advanced tools, ----.

- A) they migrated in search of favorable climates and new food sources across continents
- B) they demonstrated remarkable problem-solving abilities and adapted creatively to harsh environments
- C) their populations remained isolated and rarely interacted with other groups for thousands of years
- D) they failed to develop simple tools that were mostly used for hunting small game and gathering plants
- E) they would have depended heavily on natural shelters such as caves and dense forested areas