

2025 Science Frontiers: AI, Quantum Leap, and Space Exploration

Science · Answer Key · 10 Questions

1. Which emerging technology is set to be increasingly integrated into medical practice in 2025, assisting with tasks like automated charting and predictive disease modeling?

- A) Virtual Reality
- B) Artificial Intelligence (AI)**
- C) Augmented Reality
- D) Blockchain

2. In quantum computing, what significant development occurred in 2024-2025, moving the technology closer to real-world applications?

- A) A decrease in the number of qubits
- B) A focus on error correction advances**
- C) A reduction in venture capital funding
- D) A shift away from hybrid HPC architectures

3. Which NASA mission, launched in October 2024, is on a journey to study Jupiter's moon Europa?

- A) SPHEREx
- B) Europa Clipper**
- C) Chang'e 6
- D) BepiColombo

4. What groundbreaking development in gene editing was reported in May 2025 concerning a baby boy named KJ Muldoon?

- A) The first use of gene therapy for a common cold
- B) The first AI-generated viral genome
- C) The first bespoke, CRISPR-based gene therapy for a unique genetic mutation**
- D) The discovery of a new gene variant protecting rice from heat

5. Which field of science saw breakthroughs in 2025 with the development of industry-specific fine-tuned Large Language Models (LLMs)?

- A) Astronomy
- B) Marine Biology
- C) Artificial Intelligence**
- D) Geology

6. What significant advancement was made in the study of dark energy in March 2025, based on data from the DESI instrument?

- A) It was confirmed to be weakening**
- B) It was found to be constant
- C) Its existence was disproven
- D) It was discovered to be accelerating

7. In 2025, researchers made progress in understanding Alzheimer's disease, including breakthroughs in which of the following areas?

- A) Developing a complete cure
- B) Identifying new causes related to diet
- C) Blood biomarkers for early detection**
- D) Reversing severe cognitive decline

8. What notable discovery was made in 2025 concerning the dinosaur Nanotyrannus?

- A) It was reclassified as a juvenile T. rex
- B) It was confirmed as a distinct dinosaur species**
- C) It was found to be the largest dinosaur ever discovered
- D) Fossils indicated it was herbivorous

9. Which technology saw advancements in 2025 with expanded context window capabilities, allowing for the simultaneous processing of extensive documents?

- A) Quantum Computing
- B) Virtual Reality
- C) Artificial Intelligence (AI)**
- D) Biotechnology

10. In materials science, what type of engineered material is being developed for applications in wireless communications and energy harvesting, with properties not found in nature?

- A) Graphene
- B) Aerogel
- C) Metamaterials**
- D) Superconductors