

# China's Tech Frontier: Quantum Leaps, AI Governance, and Lunar Ambitions

China Tech · Answer Key · 20 Questions

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**1. In the realm of quantum computing, which of the following Chinese quantum computer prototypes has achieved a record number of readable qubits and demonstrated a significant leap in quantum computational advantage?**

- A) Zuchongzhi 2.1 (66 qubits)
- B) Zuchongzhi 3.0 (105 qubits)**
- C) Jiuzhang (photonic system)
- D) Origin Wukong (72 qubits)

**2. As of late 2025, China has made significant strides in AI regulation. Which of the following was a key initiative announced in July 2025 to shape international AI governance and establish domestic safeguards?**

- A) The AI Safety Governance Framework
- B) The Global AI Governance Action Plan**
- C) The National Guidelines for the Development of a Comprehensive Standardization System for the AI Industry
- D) The Interim Measures for the Management of Generative Artificial Intelligence Services

**3. China's Chang'e-6 mission achieved a historic milestone in lunar exploration in June 2024. What was this primary achievement?**

- A) Successfully landing on the lunar south pole
- B) Collecting and returning the first-ever samples from the far side of the moon**
- C) Deploying a rover to explore lunar lava tubes
- D) Establishing a permanent research base on the moon

**4. Which agricultural biotechnology breakthrough did Chinese researchers achieve in August 2025, as published in the journal Cell?**

- A) Development of a gene-edited rice variety resistant to all known pests
- B) Creation of the world's first AI-powered breeding robot named GEAIR**
- C) Successful cultivation of the first genetically engineered wheat variety
- D) Breakthroughs in drought-resistant corn through synthetic biology

**5. In late 2024, China's semiconductor industry saw a significant development concerning High Bandwidth Memory (HBM). Which company was reported to be aiming for mass production of HBM3 by 2026, alongside investments in dedicated HBM packaging capacity?**

- A) YMTC (Yangtze Memory Technologies Corp)
- B) SMIC (Semiconductor Manufacturing International Corporation)
- C) CXMT (ChangXin Memory Technologies)**
- D) HiSilicon

**6. China has been rapidly advancing its drone technology. As of November 2025, what percentage of global drone-related patent applications does China account for, solidifying its position as the leading source of drone technology worldwide?**

- A) Over 50%
- B) Over 60%
- C) Over 70%**
- D) Over 80%

**7. Regarding the development of humanoid robots, which Chinese company pivoted to bipedal humanoid robots in 2024-2025, leveraging mature motor and algorithm components for expanded production and R&D?**

- A) UBTECH
- B) ENGINEAI Robotics
- C) Unitree**
- D) Leju Robotics

**8. In renewable energy, China achieved a significant milestone by late 2024, well ahead of its 2030 target. What was this milestone?**

- A) Becoming the world's largest producer of solar panels
- B) Having the highest installed capacity for renewable energy globally
- C) Reaching 1,200 gigawatts (GW) of installed wind and solar power capacity**
- D) Achieving 50% of its electricity from renewable sources

**9. China's advancements in biotechnology include gene editing. In June 2025, researchers developed new tools known as mitochondrial DNA base editors. What is the primary potential application of these editors?**

- A) Treating genetic disorders caused by mutations in the nuclear DNA
- B) Enabling faster and more efficient CRISPR-Cas9 gene editing
- C) Developing gene therapies for serious conditions caused by mitochondrial DNA errors**
- D) Creating genetically modified crops with enhanced nutritional value

**10. In the telecommunications sector, China is a leader in 5G-Advanced and looking towards 6G. By the end of 3Q25, what was the total number of 5G base stations in China?**

- A) Approximately 3.5 million
- B) Approximately 4.7 million**
- C) Approximately 5.2 million
- D) Approximately 6.0 million

**11. China's electric vehicle (EV) market is the largest globally. In 2025, what significant achievement did China's EV market reach regarding new vehicle sales?**

- A) Surpassing 50% electric vehicle share of new vehicle sales globally
- B) Becoming the first major market globally to surpass a 50% electric vehicle share of new vehicle sales**
- C) Achieving 60% of new vehicle sales as electric vehicles
- D) Becoming the largest exporter of EVs globally

**12. In the field of artificial intelligence governance, China released the 'Measures for Labelling of AI-Generated Synthetic Content' (Labelling Measures) and the 'Labelling Standard.' When did these measures and the standard become effective?**

- A) September 1, 2024
- B) September 1, 2025**
- C) October 1, 2025
- D) November 1, 2025

**13. Which Chinese quantum computer, a 100-qubit neutral-atom system, entered commercial sales in 2025 with customers including Pakistan's government?**

- A) Zuchongzhi 3.2
- B) Tianyan-504
- C) Hanyuan-1**
- D) Origin Benyuan Wuyuan

**14. China aims for significant progress in its semiconductor industry. The third phase of 'The Big Fund' (2025-2040) aims for what primary goal?**

- A) To focus on developing advanced logic process nodes up to 7nm/5nm
- B) To establish a fully independent domestic supply chain, including all fab tools and core technology**
- C) To significantly increase market share in the semiconductor device space to 10%
- D) To achieve 50% semiconductor self-sufficiency by 2027

**15. In space exploration, China's Tianwen-2 mission is scheduled for launch around 2025. What is the primary objective of this mission?**

- A) To explore the Jovian system
- B) To collect Martian samples
- C) To conduct asteroid flyby and sampling**
- D) To survey the lunar south pole region

**16. China leads in the production of civilian drones. In 2024, China accounted for approximately what percentage of approved drone patents globally?**

- A) Around 50%
- B) Around 60%
- C) Around 79%**
- D) Around 90%

**17. Which renewable energy technology saw a Chinese firm, Jinko Solar, achieve a global record for conversion efficiency with its high-efficiency N-type TOPCon modules reaching 25.58 percent, as of late 2025?**

- A) Offshore wind turbines
- B) Lithium-ion batteries for drones
- C) Photovoltaic cells (solar power)**
- D) Energy storage systems

**18. What is the projected market size for China's low-altitude economy, driven by drone logistics, by 2025, according to experts?**

- A) Between 58.18 billion RMB and 120 billion RMB
- B) Between 120 billion RMB and 150 billion RMB**
- C) Between 150 billion RMB and 180 billion RMB
- D) Between 180 billion RMB and 210 billion RMB

**19. In the field of biotechnology, China has been making strides. In December 2024, the Ministry of Agriculture and Rural Affairs approved the first gene-edited rice event for local cultivation. What does this approval signify?**

- A) Immediate commercialization of gene-edited rice across China
- B) A crucial step towards permitting the commercialization of gene-edited crops**
- C) The establishment of national guidelines for gene-editing research
- D) A ban on all genetically modified (GM) crops in favor of gene-edited ones

**20. Regarding China's 6G development, initial phases of research and trials were completed in 2025. What is the projected timeline for the potential commercialization of 6G in China?**

- A) By 2027
- B) By 2028
- C) By 2030**
- D) By 2035