

BRICS Nations Lead Global Tech Shifts: Quantum Computing, AI, and Sustainable Agriculture

BRICS Tech · Answer Key · 17 Questions

1. Which BRICS nation is making particularly significant and revolutionary strides in quantum computing, including the development of the "Jiuzhang" quantum computer and advancements in quantum communication?

- A) India
- B) Brazil
- C) China**
- D) South Africa

2. What is the projected realized economic potential of generative AI technologies embraced by BRICS+ countries by 2030, according to a study by Yakov and Partners?

- A) USD 100-200 billion
- B) USD 350-600 billion**
- C) USD 700-900 billion
- D) USD 1.4-2 trillion

3. In the realm of sustainable agriculture, which BRICS country has significantly improved crop yields through the development of genetically modified pest-resistant soybeans?

- A) Russia
- B) China
- C) South Africa
- D) Brazil**

4. The BRICS bloc has been actively developing cooperation in space exploration. Which of the following is a key area where BRICS space capabilities carry global significance, according to recent reports?

- A) Asteroid mining for rare earth elements
- B) Establishing a permanent lunar base
- C) Climate monitoring and digital connectivity**
- D) Developing faster-than-light travel

5. Which BRICS country is identified as the undisputed leader among all BRICS nations in the development of Artificial Intelligence, despite varying regulatory approaches?

- A) India
- B) Brazil
- C) China**
- D) Russia

6. Collectively, BRICS countries aim to occupy what percentage of the global quantum computing market by 2040, according to projections?

- A) 5-10%
- B) 10-15%
- C) 20-25%**
- D) 30-35%

7. What is a primary focus of BRICS countries regarding quantum communications, particularly in the context of enhancing cyber resilience?

- A) Developing quantum-based entertainment platforms
- B) Strengthening domestic capabilities and reducing strategic dependency**
- C) Creating large-scale quantum gaming networks
- D) Establishing quantum-powered internet service providers

8. Which two BRICS nations have collaborated to establish the world's longest quantum communication line, demonstrating a significant step towards a global quantum network?

- A) Russia and India
- B) China and South Africa**
- C) Brazil and India
- D) South Africa and Russia

9. In which six key industries is nearly 70% of the potential impact of Generative AI integration into BRICS+ economies expected to be felt?

- A) Healthcare, Education, Tourism, Manufacturing, Agriculture, Mining
- B) Banking, Retail, Mechanical Engineering, Energy, Electronics, and IT**
- C) Transportation, Logistics, Construction, Real Estate, Entertainment, and Media
- D) Telecommunications, Pharmaceuticals, Biotechnology, Aerospace, Defense, and Automotive

10. As of early 2025, which BRICS nations are leading the global solar power race, making up three of the top five solar generation countries and accounting for over half of the world's solar power generation?

- A) Russia, South Africa, and Iran
- B) China, India, and Brazil**
- C) Egypt, Ethiopia, and Indonesia
- D) Saudi Arabia, UAE, and Kazakhstan

11. What is a significant technological advancement China has employed in agriculture for real-time crop monitoring and resource optimization?

- A) Genetically modified insect-resistant crops
- B) Advanced hydroponic systems
- C) Satellite imagery and drone technology**
- D) Vertical farming in urban centers

12. The BRICS summit statement in Brazil (December 2025) recognized quantum computing as a strategic common priority. What fundamental principle of quantum mechanics enables quantum computers to perform massive parallel processing?

- A) Quantum entanglement
- B) Quantum superposition**
- C) Quantum tunneling
- D) Quantum Zeno effect

13. Which BRICS country has demonstrated strong positions in the ongoing 'quantum race' and aims to potentially capture up to 6% of the global quantum computing market by 2040?

- A) China
- B) India
- C) Brazil
- D) Russia**

14. BRICS countries are increasingly focusing on quantum sensors for industrial applications. What capability do these sensors leverage to achieve high precision measurements?

- A) Electromagnetic induction
- B) Thermodynamic principles
- C) Quantum phenomena**
- D) Superconductivity at room temperature

15. Regarding the pharmaceutical industry, what is a key area of focus for BRICS countries to accelerate market entry of affordable biologics and benefit global healthcare access?

- A) Increasing the cost of patented drugs
- B) Harmonizing R&D efficiency and regulatory frameworks**
- C) Restricting international clinical trials
- D) Prioritizing only generic drug production

16. What percentage of the total impact of Generative AI in BRICS+ economies is expected to be attributed to GenAI technologies by 2030?

- A) 5%
- B) 10%
- C) 20%**
- D) 30%

17. Which BRICS nation hosted the AI Impact Summit 2026, emphasizing a human-centric approach and the democratization of AI?

- A) China
- B) South Africa
- C) India**
- D) Russia