G7 Nations Spearhead Global Scientific Frontiers: Fusion, AI, Quantum, and S

Science · Practice Test · 12 Questions

1. Which G7 nation is aiming to be the first country with a clear pathway to commercial fusion energy, supported by a £2.5 billion investment over five years (2025-2030)?

A) United States
B) Japan
C) United Kingdom
D) Germany

2. Canada leads the G7 in research output per capita, particularly in which rapidly advancing field, with significant government investment in sovereign AI compute capacity?

A) Biotechnology
B) Artificial Intelligence
C) Renewable Energy
D) Nanotechnology

3. Germany is positioning itself as a leader in quantum technologies, with a focus on developing error-corrected quantum computers. By what year does Germany aim to have at least two such computers at a top-class European level?

A) 2028
B) 2035
C) 2030
D) 2032

4. Japan's space exploration efforts include international collaborations. Which joint project with the EU aims to explore the planet Mercury and is scheduled to begin orbiting it in 2025?

A) JUICE
B) BepiColombo
C) SLIM
D) Hakuto-R

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5. France is actively investing in advanced materials. Under its 'France 2030' plan, how much has been allocated to secure supply chains for critical technologies, including rare earth elements and semiconductors?

A) EUR57 billion
B) EUR10 billion
C) EUR20 billion
D) EUR500 million

6. The United States has seen significant medical research breakthroughs in 2025. Which of the following areas has seen advancements in AI integration for medical practice?

A) Robotic Surgery and Diagnostics
B) Automated Charting and Clinical Decision Support
C) Personalized Treatment Plans and Drug Discovery
D) All of the above

7. Italy hosted the G7 Science and Technology Ministers' meeting in July 2024. A key focus of this meeting was to discuss the role of science in achieving global goals, including the Kunming-Montreal Global Biodiversity Framework and the objectives of which major climate agreement?

A) Kyoto Protocol
B) Paris Agreement
C) Copenhagen Accord
D) Montreal Protocol

8. Japan Aerospace Exploration Agency (JAXA) launched the world's first wooden satellite, LignoSat, in December 2024. What is the primary environmental motivation behind this innovation?

A) To reduce the cost of satellite manufacturing
B) To make space exploration more sustainable by reducing atmospheric impact upon re-entry
C) To test new biodegradable materials in orbit
D) To study the effects of wood in the vacuum of space

9. In the field of materials science, France is focusing on three pillars for innovation. Which of the following is NOT one of these pillars?

A) Technological Sovereignty
B) Sustainability
C) Digitalization
D) Space Exploration Dominance

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10. The UK's strategy for fusion energy includes a £2.5 billion investment. Which of the following is a key area of opportunity identified within the UK's industrial ecosystem for fusion development?

A) Advanced Materials
B) Robotics and Remote Maintenance
C) AI-driven Control Systems
D) All of the above

11. Canada is making significant investments in AI, including a C$2 billion commitment over five years through its Sovereign AI Compute Strategy. What is a primary goal of this strategy?

A) To exclusively fund Canadian AI research institutions
B) To expand domestic AI compute capacity and improve access for Canadian firms
C) To develop new AI hardware for export
D) To regulate the use of AI in international markets

12. Germany's 'Quantum Technologies Action Plan' aims to bring quantum technologies into wider use. What is an estimated amount earmarked for the further development of quantum technologies in Germany until 2026?

A) USD 3 billion
B) USD 1 billion
C) USD 500 million
D) USD 10 billion

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