

South Korea's Tech Frontier: AI, Semiconductors, and EV Shifts Defining 2025

South Korea Technology · Answer Key · 14 Questions

1. In April 2024, South Korean President Yoon Suk Yeol announced a significant investment plan to bolster the nation's artificial intelligence capabilities. By what year does South Korea aim to complete this substantial investment, and what is the total amount earmarked for AI development?

- A) By 2026, with an investment of USD 5 billion.
- B) By 2027, with an investment of USD 6.94 billion (9.4 trillion won).**
- C) By 2028, with an investment of USD 10 billion.
- D) By 2025, with an investment of USD 3 billion.

2. South Korea's semiconductor foundry market is projected for substantial growth. What is the estimated market size for South Korea's semiconductor foundry market in 2025, and what is the projected Compound Annual Growth Rate (CAGR) through 2030?

- A) USD 20.5 billion with a CAGR of 6.5%
- B) USD 23.1 billion with a CAGR of 7.9%**
- C) USD 25.8 billion with a CAGR of 9.2%
- D) USD 18.9 billion with a CAGR of 5.8%

3. The South Korean electric vehicle (EV) market is experiencing rapid expansion. What percentage of total vehicle sales is the EV market projected to reach by the end of 2025?

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

4. In terms of drug discovery and biopharmaceutical innovation, South Korea has made significant strides. Which of the following was a notable milestone in 2024 for South Korea's pharmaceutical industry, involving an FDA approval?

- A) The FDA approval of a novel Alzheimer's drug developed by GC Biopharma.
- B) The FDA approval of Yuhan's novel lung cancer drug, lazertinib, in combination with J&J's Rybrevant.**
- C) The FDA approval of a new vaccine candidate by Samsung Biologics.
- D) The FDA approval of a groundbreaking gene therapy by Lotte Biologics.

5. South Korea's AI market is experiencing robust growth. What is the projected market size for South Korea's AI market in 2025, and what is the anticipated CAGR from 2025 to 2030?

- A) USD 3.9 billion with a CAGR of 26.33%
- B) USD 4.34 billion with a CAGR of 27.63%**
- C) USD 5.47 billion with a CAGR of 33.40%
- D) USD 7.17 billion with a CAGR of 30.15%

6. Regarding South Korea's quantum technology development, what was the approximate government investment in quantum technology for 2025, representing a significant year-over-year increase?

- A) Over USD 140 million
- B) Over USD 250 million**
- C) Over USD 100 million
- D) Over USD 180 million

7. In the fintech sector, what was the reported increase in the adoption of open banking platforms in South Korea in 2024, as indicated by the Korea Financial Telecommunications & Clearings Institute (KFTC)?

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

8. South Korea's semiconductor industry is a major economic driver. What was the total value of South Korea's semiconductor exports in 2024, making it the country's largest export item?

- A) USD 100 billion
- B) USD 141.9 billion**
- C) USD 125 billion
- D) USD 95 billion

9. The South Korean government has enacted significant legislation to support smart city development. What year was the Smart City Act enacted, marking a policy shift towards data-driven urban innovation?

- A) 2022
- B) 2024**
- C) 2023
- D) 2021

10. South Korea's biopharmaceutical sector has seen a surge in licensing agreements. What was the total deal value in 2025 year-to-date (YTD) for innovator drug licensing agreements involving South Korean companies, representing a substantial increase from the previous year?

- A) USD 3.67 billion
- B) USD 7.86 billion**
- C) USD 5.1 billion
- D) USD 2.5 billion

11. In the South Korean electric vehicle market, which imported model emerged as a significant growth driver in 2025, selling over 50,000 units and capturing a substantial portion of the pure electric passenger vehicle market?

- A) Tesla Model 3
- B) Tesla Model Y**
- C) BMW i4
- D) Hyundai Ioniq 5

12. South Korea's AI Basic Act, aimed at establishing rules for the safe, ethical, and transparent use of AI, was adopted in January 2025. When will this act officially take effect?

- A) January 1, 2025
- B) January 1, 2026**
- C) July 1, 2025
- D) March 1, 2026

13. The South Korean government plans to invest significantly in its semiconductor industry. How much is South Korea planning to invest in KRW to bolster the development of its semiconductor industry, aiming to create a global hub for AI-driven innovation?

- A) KRW 160 trillion
- B) KRW 700 trillion**
- C) KRW 215.9 billion
- D) KRW 1.2676 trillion

14. In 2025, South Korea surpassed a key milestone in its electric vehicle market, exceeding a certain market share for the first time. What was this market share percentage achieved by the end of 2025?

- A) 7.9%
- B) 13.1%**
- C) 10%
- D) 18.1%