

Telecommunications: Historical Milestones and Verified Events

Telecommunications · Answer Key · 12 Questions

1. Which pioneering experiment in 1837 demonstrated the practical feasibility of transmitting electrical signals over long distances for communication, laying the groundwork for the telegraph?

- A) Alexander Graham Bell's 'harmonic telegraph' experiments
- B) Samuel Morse's demonstration of the single-wire telegraph between Washington D.C. and Baltimore**
- C) Guglielmo Marconi's first transatlantic wireless telegraph transmission
- D) Charles Wheatstone and William Cooke's improved telegraph system in Britain

2. The first successful transatlantic telegraph cable, completed in 1866 after several previous failures, was a monumental achievement. Which country's efforts were primarily responsible for its laying?

- A) United States
- B) France
- C) Great Britain**
- D) Germany

3. In 1901, Guglielmo Marconi achieved a significant breakthrough in wireless communication. What was the nature of this accomplishment?

- A) The first public demonstration of voice transmission via radio waves
- B) The first successful transmission of radio signals across the Atlantic Ocean**
- C) The invention of the vacuum tube amplifier for radio signals
- D) The establishment of the first commercial radio broadcasting station

4. Who is credited with inventing the 'photophone' in 1880, a device that transmitted speech on a beam of light, predating radio transmission of voice by many years?

- A) Nikola Tesla
- B) Thomas Edison
- C) Alexander Graham Bell**
- D) Heinrich Hertz

5. The development of the coaxial cable in the 1930s was crucial for the advancement of television broadcasting and high-speed data transmission. Who is primarily associated with its early development and application in television?

- A) Philo Farnsworth**
- B) Vladimir Zworykin
- C) Karl Jansky
- D) Ing. Herman Theodore Alden

6. The invention of the transistor in 1947 by scientists at Bell Labs revolutionized electronics and telecommunications. Which of these was NOT a direct and immediate consequence of the transistor's invention?

- A) Miniaturization of electronic devices
- B) Increased reliability and reduced power consumption of telecommunication equipment
- C) The development of the first digital computers
- D) The elimination of the need for vacuum tubes in all electronic circuits**

7. The launch of Sputnik 1 in 1957 by the Soviet Union spurred the Space Race and had profound implications for telecommunications. What was a significant telecommunications-related outcome of this event?

- A) The immediate development of global satellite television broadcasting
- B) The establishment of the first international telecommunications satellite network
- C) The acceleration of research and development into satellite communication technology**
- D) The invention of fiber optic cables for space-to-ground communication

8. The first geostationary telecommunications satellite, Syncom 3, was launched in 1964 and enabled what critical telecommunications milestone?

- A) The first live international television broadcast of the Olympic Games**
- B) The transmission of the first intercontinental telephone calls
- C) The creation of a global weather monitoring system
- D) The first successful demonstration of satellite-based internet access

9. The development of the Integrated Circuit (IC) in the late 1950s and early 1960s, notably by Jack Kilby and Robert Noyce, was a pivotal moment. Which of the following is a direct impact on telecommunications?

- A) Enabled the creation of pocket-sized mobile phones**
- B) Led to the development of the first public telephone exchanges
- C) Made long-distance radio communication obsolete
- D) Facilitated the invention of the fax machine

10. The ARPANET, a precursor to the modern internet, was first demonstrated in 1972. What was the primary initial purpose for its development?

- A) Commercial online shopping and banking
- B) Global video conferencing and streaming
- C) Sharing research data and resources among research institutions**
- D) Facilitating real-time social networking and communication

11. The first public demonstration of a cellular mobile telephone system occurred in 1973. Who made the first public call on a prototype Motorola DynaTAC?

A) Martin Cooper

B) Steve Jobs

C) Bill Gates

D) Andy Grove

12. The invention of fiber optics for telecommunications saw significant advancements in the 1970s. What is the primary advantage of fiber optic cables over traditional copper wires for data transmission?

A) Lower cost of installation

B) Greater flexibility and ease of repair

C) Higher bandwidth and significantly reduced signal attenuation

D) Immunity to electromagnetic interference in all environments