

Telecommunications History and Technical Milestones

Telecommunications · Practice Test · 25 Questions

1. In what year was the first commercial Transatlantic telephone cable, TAT-1, inaugurated?

- A) 1952
- B) 1956
- C) 1960
- D) 1964

2. What is the maximum frequency range typically associated with the 'Ka-band' used in satellite communications?

- A) 1-2 GHz
- B) 8-12 GHz
- C) 26-40 GHz
- D) 70-100 GHz

3. Who is credited with the 1876 patent for the telephone, assigned patent number 174,465?

- A) Alexander Graham Bell
- B) Elisha Gray
- C) Antonio Meucci
- D) Thomas Edison

4. The GSM standard, originally defined in 1987, stands for what specific historical name?

- A) Global System for Mobile Communications
- B) General System for Messaging
- C) Group Special Mobile
- D) Global Standard for Modulation

5. How many bits are in a standard IPv4 address?

- A) 16
- B) 32
- C) 64
- D) 128

6. In which decade was the first successful commercial fiber optic link installed in Chicago by Bell Labs?

- A) 1960s
- B) 1970s
- C) 1980s
- D) 1990s

7. The Shannon-Hartley theorem relates the channel capacity to which two variables?

- A) Voltage and Current
- B) Bandwidth and Signal-to-Noise Ratio
- C) Resistance and Frequency
- D) Latency and Packet Loss

8. Which company launched the Telstar 1 satellite, the first active communications satellite, in 1962?

- A) AT&T
- B) NASA
- C) Intelsat
- D) Hughes Aircraft

9. What is the standard baud rate for the original RS-232 serial communication protocol designed for modems?

- A) 300 baud
- B) 1200 baud
- C) 9600 baud
- D) 19200 baud

10. The ARPANET, the precursor to the modern Internet, sent its first host-to-host message in what year?

- A) 1965
- B) 1969
- C) 1973
- D) 1983

11. What is the common frequency, in Gigahertz, of the unlicensed ISM band used by standard Wi-Fi (IEEE 802.11b/g)?

- A) 2.4 GHz
- B) 3.5 GHz
- C) 5.8 GHz
- D) 10 GHz

12. In the OSI model, which layer is responsible for routing and logical addressing (Layer 3)?

- A) Data Link
- B) Network
- C) Transport
- D) Session

13. The first SMS message was sent in December 1992; what were the words of the message?

- A) Hello World
- B) Merry Christmas
- C) Test Message
- D) Signal Clear

14. How many channels were available in the original NMT (Nordic Mobile Telephone) system launched in 1981?

- A) 180
- B) 250
- C) 360
- D) 450

15. What is the typical width, in MHz, of a standard television channel in the PAL broadcasting system?

- A) 5 MHz
- B) 6 MHz
- C) 7 MHz
- D) 8 MHz

16. The 'Erlang' is a unit of measurement used in telecommunications to define what?

- A) Signal interference
- B) Data throughput
- C) Offered traffic load
- D) Latency

17. Which protocol, finalized in 1983, became the standard for data exchange on ARPANET, replacing NCP?

- A) HTTP
- B) TCP/IP
- C) FTP
- D) SMTP

18. In the context of optical fiber, what does the abbreviation 'SMF' stand for?

- A) Standard Multimode Fiber
- B) Single Mode Fiber
- C) Signal Modulation Frequency
- D) Synchronous Modular Frame

19. What is the nominal characteristic impedance, in Ohms, of standard coaxial cable used in video and RF applications?

- A) 50 Ohms
- B) 75 Ohms
- C) 100 Ohms
- D) 300 Ohms

20. The 'Moore's Law' observation was first published by Gordon Moore in what year?

- A) 1955
- B) 1965
- C) 1975
- D) 1985

21. Which organization, established in 1865, is the oldest international organization for telecommunications?

- A) ITU
- B) IEEE
- C) ISO
- D) ETSI

22. How many pins are in a standard RJ-45 connector used for Ethernet networking?

- A) 4
- B) 6
- C) 8
- D) 10

23. The 5G standard (IMT-2020) was officially defined by the ITU in which year?

- A) 2015
- B) 2017
- C) 2019
- D) 2021

24. What is the maximum effective range, in meters, of a Class 2 Bluetooth device?

- A) 1 meter
- B) 10 meters
- C) 50 meters
- D) 100 meters

25. The Morse code distress signal 'SOS' was officially adopted internationally in what year?

- A) 1901
- B) 1906
- C) 1912
- D) 1918