1. Which cellular network technology is commonly associated with mobile phones and operates on the GSM standard?

a) LTE
b) CDMA
c) UMTS
d) WiMAX

Answer: c) UMTS

Explanation: UMTS (Universal Mobile Telecommunication System) is a third-generation (3G) mobile cellular technology based on the GSM standard, offering higher data speeds and improved multimedia capabilities compared to its predecessors.

2. Which technology is known for its use of spread spectrum techniques and is commonly used in North America for mobile communication?

a) GSM
b) CDMA
c) UMTS
d) WiMAX

Answer: b) CDMA

Explanation: CDMA (Code Division Multiple Access) is a digital cellular technology that uses spread spectrum techniques for communication. It’s widely used in North America and some other parts of the world.

3. Which IEEE standard is associated with WLAN and operates in the 5 GHz frequency band, offering high data rates?

a) 802.11a
b) 802.11b
c) 802.11g
d) 802.11ac

Answer: a) 802.11a

Explanation: IEEE 802.11a is a standard for wireless local area networks (WLANs) that operates in the 5 GHz frequency band, providing higher data rates compared to other standards like 802.11b and 802.11g.

4. Which wireless technology is designed for high-speed metropolitan area networks (MANs) and operates in both licensed and unlicensed frequency bands?

a) WiMAX
b) GSM
c) UMTS
d) LTE

Answer: a) WiMAX

Explanation: WiMAX (Worldwide Interoperability for Microwave Access) is a wireless technology designed to provide high-speed data over long distances in metropolitan area networks (MANs), operating in both licensed and unlicensed frequency bands.

5. Which technology is primarily associated with wireless broadband access and operates on the IEEE 802.16 standard?

a) LTE
b) CDMA
c) WiMAX
d) UMTS

Answer: c) WiMAX

Explanation: WiMAX (Worldwide Interoperability for Microwave Access) is a wireless technology based on the IEEE 802.16 standard, primarily used for providing wireless broadband access over long distances.

6. Which IEEE standard is commonly used for wireless local area networking and operates in the 2.4 GHz frequency band?

a) 802.11a
b) 802.11b
c) 802.11g
d) 802.11ac

Answer: b) 802.11b

Explanation: IEEE 802.11b is a standard for wireless local area networking (WLAN) operating in the 2.4 GHz frequency band, offering lower data rates compared to 802.11a and 802.11g but providing broader coverage.

7. Which cellular network technology is often referred to as “4G” and is known for its high data transfer rates and low latency?

a) GSM
b) CDMA
c) UMTS
d) LTE

Answer: d) LTE

Explanation: LTE (Long-Term Evolution) is commonly known as “4G” and is a standard for wireless broadband communication. It offers high data transfer rates, low latency, and improved spectral efficiency compared to previous generations.

8. Which wireless technology operates in the 60 GHz frequency band and is designed for high-speed short-range communication?

a) WiMAX
b) HIPERLAN
c) CDMA
d) UMTS

Answer: b) HIPERLAN

Explanation: HIPERLAN (High-Performance Radio Local Area Network) is a standard for wireless communication operating in the 60 GHz frequency band, designed for high-speed short-range communication within a local area network.

9. Which IEEE standard is an extension of the 802.11 standard and operates in the 2.4 GHz and 5 GHz frequency bands, offering high data rates and improved performance?

a) 802.11a
b) 802.11b
c) 802.11g
d) 802.11ac

Answer: d) 802.11ac

Explanation: IEEE 802.11ac is an extension of the 802.11 standard for wireless local area networking, operating in both the 2.4 GHz and 5 GHz frequency bands. It offers high data rates and improved performance compared to previous standards.

10. Which cellular network technology was a predecessor to UMTS and provided enhanced data transfer rates and multimedia support?

a) GSM
b) CDMA
c) LTE
d) EDGE

Answer: d) EDGE

Explanation: EDGE (Enhanced Data rates for GSM Evolution) was a digital mobile phone technology that served as a transition between GSM and UMTS. It offered enhanced data transfer rates and multimedia support compared to traditional GSM networks.