

1. Which type of antenna is known for its wide bandwidth and constant impedance over a wide frequency range?

- a) Log periodic antenna
- b) Loop antenna
- c) Helical antenna
- d) Biconical antenna

Answer: a) Log periodic antenna

Explanation: Log periodic antennas are characterized by their ability to maintain a consistent impedance and radiation pattern over a wide range of frequencies, making them suitable for broadband applications.

2. Which antenna design is commonly used for direction finding and radio navigation due to its circular polarization?

- a) Loop antenna
- b) Yagi-Uda antenna
- c) Helical antenna
- d) Folded dipole antenna

Answer: c) Helical antenna

Explanation: Helical antennas are often used in applications where circular polarization is required, such as direction finding systems and satellite communication.

3. Which type of antenna is composed of two conical conductive elements joined at their apex?

- a) Log periodic antenna
- b) Biconical antenna

- c) Loop antenna
- d) Yagi-Uda antenna

Answer: b) Biconical antenna

Explanation: Biconical antennas consist of two conical conductive elements joined at their apex, resembling a pair of cones placed base to base.

4. The Yagi-Uda antenna is commonly used in which application?

- a) FM radio broadcasting
- b) Television reception
- c) Radar systems
- d) Wi-Fi communication

Answer: a) FM radio broadcasting

Explanation: The Yagi-Uda antenna, often referred to simply as a Yagi antenna, is commonly used in FM radio broadcasting due to its directional characteristics and gain.

5. Which type of antenna uses a dielectric material to focus or direct electromagnetic waves?

- a) Log periodic antenna
- b) Loop antenna
- c) Lens antenna
- d) Folded dipole antenna

Answer: c) Lens antenna

Explanation: Lens antennas use dielectric materials to manipulate electromagnetic waves, focusing or directing them in specific directions.

6. Which antenna design is characterized by its simple, folded shape and balanced radiation

pattern?

- a) Biconical antenna
- b) Folded dipole antenna
- c) Turnstile antenna
- d) Long wire antenna

Answer: b) Folded dipole antenna

Explanation: Folded dipole antennas are known for their simple folded shape and balanced radiation pattern, making them popular for various applications including TV reception and amateur radio.

7. A long wire antenna is most effective when its length is _ the wavelength of the radio waves it is intended to receive.

- a) Equal to
- b) Half of
- c) Double
- d) Unrelated to

Answer: b) Half of

Explanation: A long wire antenna is typically most effective when its length is approximately half of the wavelength of the radio waves it is intended to receive, enabling efficient resonance.

8. Which antenna design is often used for satellite communication and spaceborne applications due to its omnidirectional radiation pattern?

- a) V-antenna
- b) Rhombic antenna

- c) Turnstile antenna
- d) Beverage antenna

Answer: c) Turnstile antenna

Explanation: Turnstile antennas are known for their omnidirectional radiation pattern, making them suitable for applications where communication with satellites or spacecraft from various orientations is required.

9. The V-antenna gets its name from its resemblance to which letter of the alphabet?

- a) V
- b) W
- c) Y
- d) T

Answer: a) V

Explanation: The V-antenna is named for its distinctive V-shaped configuration, which resembles the letter "V" in the alphabet.

10. A rhombic antenna is characterized by its _ shape, providing high directivity and gain.

- a) Circular
- b) Square
- c) Diamond
- d) Triangular

Answer: c) Diamond

Explanation: Rhombic antennas are named for their diamond shape, which contributes to their high directivity and gain, particularly in long-distance communication applications.

