

- Q 4: Which of the following is a permissible use of the Amateur Radio Service?
(T1A12)
- A. Broadcasting music and videos to friends.
 - B. Providing a way for amateur radio operators to earn additional income by using their stations to pass messages.
 - C. Providing low-cost communications for start-up businesses.
 - D. Allowing a person to conduct radio experiments and to communicate with other licensed hams around the world.
- Q 5: Which emission may be used between 219 and 220 MHz?
(T1B13)
- A. Spread spectrum.
 - B. Data.
 - C. SSB voice.
 - D. Fast-scan television.
- Q 6: How soon after passing the examination for your first amateur radio license may you operate a transmitter on an amateur service frequency?
(T1C10)
- A. Immediately.
 - B. 30 days after the test date.
 - C. As soon as your operator/station license grant appears in the FCC's license database.
 - D. You must wait until you receive your license in the mail from the FCC.
- Q 7: Under which of the following circumstances are amateur stations authorized to transmit signals related to broadcasting, program production, or news gathering, assuming no other means is available?
(T1D09)
- A. Only where such communications directly relate to the immediate safety of human life or protection of property.
 - B. Only when broadcasting communications to or from the space shuttle.
 - C. Only where noncommercial programming is gathered and supplied exclusively to the National Public Radio network.
 - D. Only when using amateur repeaters linked to the Internet.
- Q 8: Which of the following is an example of remote control as defined in Part 97?
(T1E10)
- A. Repeater operation.
 - B. Operating the station over the Internet.
 - C. Controlling a model aircraft, boat or car by amateur radio.
 - D. All of these choices are correct.
- Q 9: What method of call sign identification is required for a station transmitting phone signals?
(T1F05)
- A. Send the call sign followed by the indicator RPT.
 - B. Send the call sign using CW or phone emission.
 - C. Send the call sign followed by the indicator R.
 - D. Send the call sign using only phone emission.

Q 10: What brief statement is often transmitted in place of CQ to indicate that you are listening on a repeater?

(T2A09)

- A. The words Hello test followed by your call sign.
- B. Your call sign.
- C. The repeater call sign followed by your call sign.
- D. The letters QSY followed by your call sign.

Q 11: What is the term used to describe an amateur station that is transmitting and receiving on the same frequency?

(T2B01)

- A. Full duplex communication.
- B. Diplex communication.
- C. Simplex communication.
- D. Multiplex communication.

Q 12: Which of the following is an accepted practice for an amateur operator who has checked into an emergency traffic net?

(T2C07)

- A. Provided that the frequency is quiet, announce the station call sign and location every 5 minutes.
- B. Move 5 kHz away from the net's frequency and use high power to ask other hams to keep clear of the net frequency.
- C. Remain on frequency without transmitting until asked to do so by the net control station.
- D. All of the choices are correct.

Q 13: When using a directional antenna, how might your station be able to access a distant repeater if buildings or obstructions are blocking the direct line of sight path?

(T3A05)

- A. Change from vertical to horizontal polarization.
- B. Try to find a path that reflects signals to the repeater.
- C. Try the long path.
- D. Increase the antenna SWR.

Q 14: How fast does a radio wave travel through free space?

(T3B04)

- A. At the speed of light.
- B. At the speed of sound.
- C. Its speed is inversely proportional to its wavelength.
- D. Its speed increases as the frequency increases.

Q 15: What mode is responsible for allowing over-the-horizon VHF and UHF communications to ranges of approximately 300 miles on a regular basis?

(T3C06)

- A. Tropospheric scatter.
- B. D layer refraction.
- C. F2 layer refraction.
- D. Faraday rotation.

Q 16: How is a computer's sound card used when conducting digital communications using a computer?

(T4A07)

- A. The sound card communicates between the computer CPU and the video display.
- B. The sound card records the audio frequency for video display.
- C. The sound card provides audio to the microphone input and converts received audio to digital form.
- D. All of these choices are correct.

Q 17: Which of the following controls could be used if the voice pitch of a single-sideband signal seems too high or low?

(T4B06)

- A. The AGC or limiter.
- B. The bandwidth selection.
- C. The tone squelch.
- D. The receiver RIT or clarifier.

Q 18: How much voltage does a mobile transceiver usually require?

(T5A06)

- A. About 12 volts.
- B. About 30 volts.
- C. About 120 volts.
- D. About 240 volts.

Q 19: Which of the following is equivalent to 500 milliwatts?

(T5B05)

- A. 0.02 watts.
- B. 0.5 watts.
- C. 5 watts.
- D. 50 watts.

Q 20: How many amperes are flowing in a circuit when the applied voltage is 12 volts DC and the load is 120 watts?

(T5C11)

- A. 0.1 amperes.
- B. 10 amperes.
- C. 12 amperes.
- D. 132 amperes.

Q 21: What formula is used to calculate voltage in a circuit?

(T5D02)

- A. Voltage (E) equals current (I) multiplied by resistance (R).
- B. Voltage (E) equals current (I) divided by resistance (R).
- C. Voltage (E) equals current (I) added to resistance (R).
- D. Voltage (E) equals current (I) minus resistance (R).

Subelement T1

4: T1A12

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5: T1B13

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8: T1E10

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Subelement T2

10: T2A09

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Subelement T3

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Subelement T5

18: T5A06

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