

Technician Practice Exam #1

1. Which of the following types of solder is best for radio and electronic use? (T7D08)

- A. Aluminum solder
- B. Rosin-core solder
- C. Acid-core solder
- D. Silver solder

2. What is the abbreviation that refers to radio frequency signals of all types? (T5C06)

- A. VHF
- B. RF
- C. HF
- D. AF

3. For what purpose is a temporary "1 by 1" format (letter-number-letter) call sign assigned? (T8C06)

- A. To designate an experimental station
- B. To honor a deceased relative who was a radio amateur
- C. For operations in conjunction with an activity of special significance to the amateur community
- D. All of these choices are correct

4. What device takes the output of a low-powered 28 MHz SSB exciter and produces a 222 MHz output signal? (T7A06)

- A. Phase converter
- B. High-pass filter
- C. Low-pass filter
- D. Transverter

5. What is the term used to describe an amateur station that is transmitting and receiving on the same frequency? (T2B01)

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

6. What should you do if another operator reports that your station's 2 meter signals were strong just a moment ago, but now they are weak or distorted? (T3A01)

- A. Try moving a few feet, as random reflections may be causing multi-path distortion
- B. Ask the other operator to adjust his squelch control
- C. Turn on the CTCSS tone
- D. Change the batteries in your radio to a different type

7. What should you do if a "Part 15" device in your neighbor's home is causing harmful interference to your amateur station? (T7B08)

- A. Politely inform your neighbor about the rules that require him to stop using the device if it causes interference
- B. Check your station and make sure it meets the standards of good amateur practice
- C. All of these choices are correct
- D. Work with your neighbor to identify the offending device

8. How many milliamperes is 1.5 amperes? (T5B01)

- A. 15 milliamperes
- B. 15,000 milliamperes
- C. 1,500 milliamperes
- D. 150 milliamperes

9. What could happen if a person accidentally touched your antenna while you were transmitting? (T0C07)

- A. Touching the antenna could cause television interference
- B. They might develop radiation poisoning
- C. All of these choices are correct
- D. They might receive a painful RF burn

10. North American amateur stations are located in which ITU region? (T1B02)

- A. Region 1
- B. Region 2
- C. Region 3
- D. Region 4

11. How soon may you operate a transmitter on an amateur service frequency after you pass the examination required for your first amateur radio license? (T1C10)

- A. 30 days after the test date
- B. Immediately
- C. As soon as your name and call sign appear in the FCC's ULS database
- D. You must wait until you receive your license in the mail from the FCC

12. Which of the following is true concerning the microphone connectors on amateur transceivers? (T4A01)

- A. Un-keyed connectors allow any microphone to be connected
- B. Some connectors include push-to-talk and voltages for powering the microphone
- C. All transceivers using the same connector type are wired identically
- D. All transceivers use the same microphone connector type

13. What reading on an SWR meter indicates a perfect impedance match between the antenna and the feedline? (T7C04)

- A. 1 to 1
- B. 10 to 1
- C. 1 to 3
- D. 2 to 1

14. What is the voltage across a 2-ohm resistor if a current of 0.5 amperes flows through it? (T5D10)

- A. 1.5 volts
- B. 0.25 volts
- C. 1 volt
- D. 2.5 volts

15. What do RACES and ARES have in common? (T2C04)

- A. Both organizations broadcast road and weather traffic information
- B. Both organizations may provide communications during emergencies

- C. Neither may handle emergency traffic supporting public service agencies
- D. They represent the two largest ham clubs in the United States

16. Who may be the control operator of a station communicating through an amateur satellite or space station? (T8B01)

- A. Any amateur whose license privileges allow them to transmit on the satellite uplink frequency
- B. Only an Amateur Extra Class operator
- C. Only an Amateur Extra Class operator who is also an AMSAT member
- D. A General Class licensee or higher licensee who has a satellite operator certification

17. What is a disadvantage of the "rubber duck" antenna supplied with most handheld radio transceivers? (T9A04)

- A. It transmits a circularly polarized signal
- B. All of these choices are correct
- C. If the rubber end cap is lost it will unravel very quickly
- D. It does not transmit or receive as effectively as a full-sized antenna

18. What type of component is often used as an adjustable volume control? (T6A02)

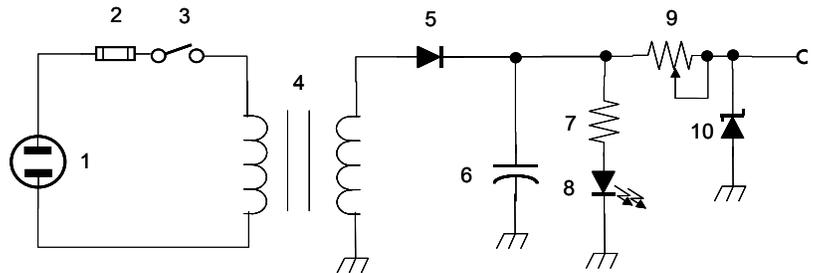
- A. Potentiometer
- B. Transformer
- C. Power resistor
- D. Fixed resistor

19. When must an amateur station have a control operator? (T1E01)

- A. Only when the station is being remotely controlled
- B. Only when the station is being locally controlled
- C. Only when the station is being automatically controlled
- D. Only when the station is transmitting

20. What is component 4 in figure T2? (T6C09)

- A. Variable inductor
- B. Transformer
- C. Potentiometer
- D. Double-pole switch



21. What is the impedance of the most commonly used coaxial cable in typical amateur radio installations? (T9B02)

- A. 600 ohms
- B. 12 ohms
- C. 8 ohms
- D. 50 ohms

22. Which of the following is a good electrical conductor? (T5A07)

- A. Glass
- B. Copper
- C. Rubber
- D. Wood

23. When must the station licensee make the station and its records available for FCC inspection? (T1F13)

- A. Any time upon request by an official observer
- B. 30 days prior to renewal of the station license
- C. Any time upon request by an FCC representative
- D. 10 days before the first transmission

24. What type of transmission is indicated by the term NTSC? (T8D04)

- A. A Normal Transmission mode in Static Circuit
- B. A frame compression scheme for TV signals
- C. A special mode for earth satellite uplink
- D. An analog fast scan color TV signal

25. What kind of hazard is presented by a conventional 12-volt storage battery? (T0A09)

- A. All of these choices are correct
- B. It emits ozone which can be harmful to the atmosphere
- C. Shock hazard due to high voltage
- D. Explosive gas can collect if not properly vented

26. What must an amateur operator do when making on-air transmissions to test equipment or antennas? (T2A06)

- A. State the purpose of the test during the test procedure
- B. Notify the FCC of the test transmission
- C. Make test transmissions only after 10:00 p.m. local time
- D. Properly identify the transmitting station

27. What is considered to be a proper grounding method for a tower? (T0B08)

- A. A single four-foot ground rod, driven into the ground no more than 12 inches from the base
- B. Separate eight-foot long ground rods for each tower leg, bonded to the tower and each other
- C. A connection between the tower base and a cold water pipe
- D. A ferrite-core RF choke connected between the tower and ground

28. Which type of modulation is most commonly used for VHF and UHF voice repeaters? (T8A04)

- A. FM
- B. SSB
- C. PSK
- D. AM

29. What type of circuit controls the amount of voltage from a power supply? (T6D05)

- A. Phase inverter
- B. Regulator
- C. Filter
- D. Oscillator

30. What is a way to enable quick access to a favorite frequency on your transceiver? (T4B04)

- A. Disable the CTCSS tones
- B. Store the frequency in a memory channel

- C. Enable the CTCSS tones
- D. Use the scan mode to select the desired frequency

31. Which semiconductor component has a gate electrode? (T6B11)

- A. Field effect transistor
- B. Bridge rectifier
- C. Silicon diode
- D. Bipolar transistor

32. What is a characteristic of VHF signals received via auroral reflection? (T3C03)

- A. These types of signals are generally strongest when your antenna is aimed to the south (for stations in the Northern Hemisphere)
- B. The signals exhibit rapid fluctuations of strength and often sound distorted
- C. These types of signals occur only during winter nighttime hours
- D. Signals from distances of 10,000 or more miles are common

33. What frequency range is referred to as HF? (T3B10)

- A. 300 to 3000 MHz
- B. 300 to 3000 kHz
- C. 30 to 300 MHz
- D. 3 to 30 MHz

34. On which of the following occasions may an FCC-licensed amateur station exchange messages with a U.S. military station? (T1D02)

- A. During a Memorial Day Celebration
- B. During a propagation test
- C. During an Independence Day celebration
- D. During an Armed Forces Day Communications Test

35. Which of the following stations transmits signals over the air from a remote receive site to a repeater for retransmission? (T1A11)

- A. Relay station
- B. Message forwarding station
- C. Auxiliary station
- D. Beacon station