

Technician Practice Exam #2

1. What set of rules applies to proper operation of your station when using amateur radio at the request of public service officials? (T2C01)

- A. FEMA Rules
- B. RACES Rules
- C. FCC Rules
- D. ARES Rules

2. What is the proper course of action if your station's transmission unintentionally interferes with another station? (T2B08)

- A. Rotate your antenna slightly
- B. Change antenna polarization
- C. Increase power
- D. Properly identify your transmission and move to a different frequency

3. What is a common repeater frequency offset in the 70 cm band? (T2A03)

- A. Plus or minus 5 MHz
- B. Plus or minus 600 kHz
- C. Plus 600 kHz
- D. Minus 600 kHz

4. What is the electrical term for the electromotive force (EMF) that causes electron flow? (T5A05)

- A. Voltage
- B. Inductance
- C. Ampere-hours
- D. Capacitance

5. When are you allowed to operate your amateur station in a foreign country? (T1C04)

- A. When there is a mutual agreement allowing third party communications
- B. When the foreign country authorizes it
- C. When you are communicating with non-licensed individuals in another country
- D. When authorization permits amateur communications in a foreign language

6. Which of the following formats of a self-assigned indicator is acceptable when identifying using a phone transmission? (T1F06)

- A. KL7CC stroke W3
- B. KL7CC slant W3
- C. KL7CC slash W3
- D. All of these choices are correct

7. Why is it important to have a low SWR in an antenna system that uses coaxial cable feedline? (T9B01)

- A. To prolong antenna life
- B. To allow the efficient transfer of power and reduce losses
- C. All of these choices are correct
- D. To reduce television interference

8. What is the approximate amount of change, measured in decibels (dB), of a power decrease from 12 watts to 3 watts? (T5B10)

- A. 3 dB
- B. 6 dB
- C. 1 dB
- D. 9 dB

9. What is a commonly used method of sending signals to and from a digital satellite? (T8B11)

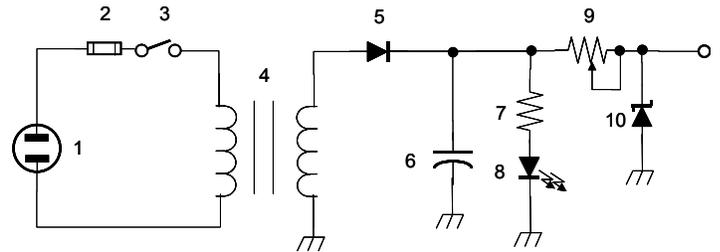
- A. WSJT
- B. USB AFSK
- C. PSK31
- D. FM Packet

10. 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. 12 amperes
- C. 10 amperes
- D. 132 amperes

11. What is the name for the distance a radio wave travels during one complete cycle? (T3B01)

- A. Wave spread
- B. Waveform
- C. Wave speed
- D. Wavelength



12. What type of switch is represented by item 3 in figure T2? (T6D03)

- A. Single-pole single-throw
- B. Double-pole double-throw
- C. Single-pole double-throw
- D. Double-pole single-throw

13. Which 23 cm frequency is authorized to a Technician Class operator license? (T1B06)

- A. 2315 MHz
- B. 1296 MHz
- C. 3390 MHz
- D. 146.52 MHz

14. What is PSK31? (T8D07)

- A. A method of reducing noise interference to FM signals
- B. A high-rate data transmission mode
- C. A method of compressing digital television signal
- D. A low-rate data transmission mode

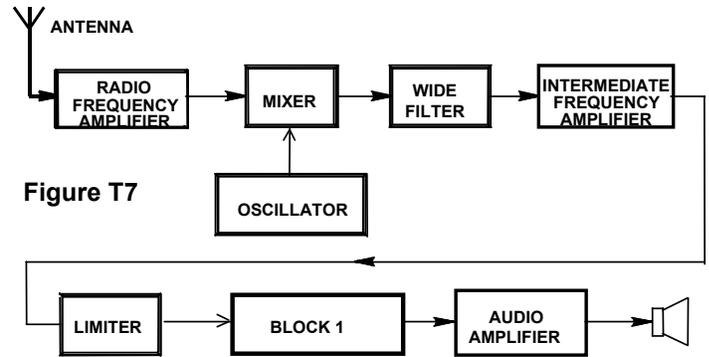
15. What is the FCC Part 97 definition of an amateur station? (T1A10)

- A. Any radio station operated by a non-professional
- B. Any radio station for hobby use
- C. A building where Amateur Radio receivers, transmitters, and RF power amplifiers are installed

D. A station in an Amateur Radio Service consisting of the apparatus necessary for carrying on radio communications

16. What circuit is pictured in Figure T7, if block 1 is a frequency discriminator? (T7A04)

- A. An FM receiver
- B. A superheterodyne receiver
- C. A double-conversion receiver
- D. A regenerative receiver



17. Which of the following is an appropriate receive filter to select in order to minimize noise and interference for SSB reception? (T4B09)

- A. 2400 Hz
- B. 1000 Hz
- C. 500 Hz
- D. 5000 Hz

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

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

19. Who is eligible to be the control operator of an amateur station? (T1E02)

- A. Only a person holding an amateur service license from any country that belongs to the United Nations
- B. Only a person over the age of 18
- C. Only a person for whom an amateur operator/primary station license grant appears in the FCC database or who is authorized for alien reciprocal operation
- D. Only a citizen of the United States

20. Why is it unwise to install a 20-ampere fuse in the place of a 5-ampere fuse? (T0A05)

- A. The power supply ripple would greatly increase
- B. All of these choices are correct
- C. Excessive current could cause a fire
- D. The larger fuse would be likely to blow because it is rated for higher current

21. What is the correct way to connect a voltmeter to a circuit? (T7D02)

- A. In series with the circuit
- B. In parallel with the circuit
- C. In phase with the circuit
- D. In quadrature with the circuit

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

- A. Signals from distances of 10,000 or more miles are common
- B. These types of signals occur only during winter nighttime hours

- C. These types of signals are generally strongest when your antenna is aimed to the south (for stations in the Northern Hemisphere)
- D. The signals exhibit rapid fluctuations of strength and often sound distorted

23. What is the cause of irregular fading of signals from distant stations during times of generally good reception? (T3A08)

- A. Absorption of signals by the "D" layer of the ionosphere
- B. Absorption of signals by the "E" layer of the ionosphere
- C. Random combining of signals arriving via different path lengths
- D. Intermodulation distortion in the local receiver

24. What is the term that describes a transistor's ability to amplify a signal? (T6B12)

- A. Forward voltage drop
- B. Forward resistance
- C. Gain
- D. On resistance

25. What is the only time an amateur station is authorized to transmit music? (T1D04)

- A. When the purpose is to interfere with an illegal transmission
- B. When incidental to an authorized retransmission of manned spacecraft communications
- C. When the music is transmitted above 1280 MHz
- D. When the music produces no spurious emissions

26. What factors affect the RF exposure of people near an amateur station antenna? (T0C04)

- A. Radiation pattern of the antenna
- B. All of these choices are correct
- C. Distance from the antenna to a person
- D. Frequency and power level of the RF field

27. What is a symptom of RF feedback in a transmitter or transceiver? (T7B11)

- A. Excessive SWR at the antenna connection
- B. Frequent blowing of power supply fuses
- C. The transmitter will not stay on the desired frequency
- D. Reports of garbled, distorted, or unintelligible transmissions

28. Which of the following is an important safety precaution to observe when putting up an antenna tower? (T0B04)

- A. Insulate the base of the tower to avoid lightning strikes
- B. Look for and stay clear of any overhead electrical wires
- C. Wear a ground strap connected to your wrist at all times
- D. All of these choices are correct

29. What instrument other than an SWR meter could you use to determine if a feedline and antenna are properly matched? (T7C08)

- A. Voltmeter
- B. Ohmmeter
- C. Iambic pentameter
- D. Directional wattmeter

30. What electrical component is used to oppose the flow of current in a DC circuit? (T6A01)

- A. Transformer
- B. Resistor
- C. Voltmeter
- D. Inductor

31. How would you change a dipole antenna to make it resonant on a higher frequency? (T9A05)

- A. Lengthen it
- B. Insert coils in series with radiating wires
- C. Add capacity hats to the ends of the radiating wires
- D. Shorten it

32. Which would you use to reduce RF current flowing on the shield of an audio cable? (T4A09)

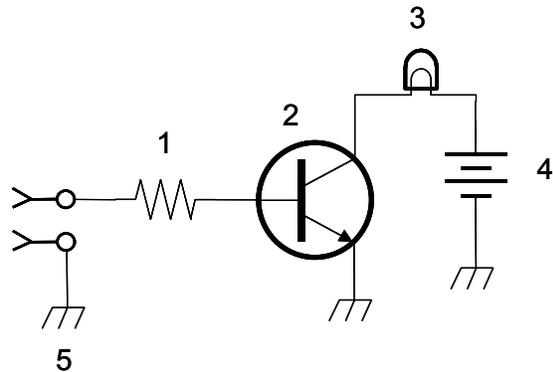
- A. Ferrite choke
- B. Preamplifier
- C. Band-pass filter
- D. Low-pass filter

33. What is the resistance of a circuit that draws 4 amperes from a 12-volt source? (T5D06)

- A. 16 ohms
- B. 48 ohms
- C. 8 Ohms
- D. 3 ohms

34. What is component 4 in figure T1? (T6C05)

- A. Ground symbol
- B. Transistor
- C. Battery
- D. Resistor



35. What popular operating activity involves contacting as many stations as possible during a specified period of time? (T8C03)

- A. Public service events
- B. Net operations
- C. Simulated emergency exercises
- D. Contesting