

Results for sample technician2014 test paper

Your answers are marked like this:

✓ **A. You got this question right, this is your correct answer.**

✗ *A. You got this question wrong, this is your incorrect answer.*

✓ *A. You got this question wrong, this is the correct answer.*

✓ **A. You didnt answer this question but this would be the correct answer.**

Subelement T0

1: T0A09

What kind of hazard is presented by a conventional 12-volt storage battery?

- A. It emits ozone which can be harmful to the atmosphere
- B. Shock hazard due to high voltage

✓ **C. Explosive gas can collect if not properly vented**

- D. All of these choices are correct

2: T0B11

Which of the following establishes grounding requirements for an amateur radio tower or antenna?

- A. FCC Part 97 Rules

✓ **B. Local electrical codes**

- C. FAA tower lighting regulations
- D. Underwriters Laboratories' recommended practices

3: T0C01

What type of radiation are VHF and UHF radio signals?

- A. Gamma radiation
- B. Ionizing radiation
- C. Alpha radiation

✓ **D. Non-ionizing radiation**

Subelement T1

4: T1A14

What must you do if you are operating on the 23 cm band and learn that you are interfering with a radiolocation station outside the United States?

✓ **A. Stop operating or take steps to eliminate the harmful interference**

- B. Nothing, because this band is allocated exclusively to the amateur service
- C. Establish contact with the radiolocation station and ask them to change frequency
- D. Change to CW mode, because this would not likely cause interference

5: T1B11

What emission modes are permitted in the mode-restricted sub-bands at 50.0 to 50.1 MHz and 144.0 to 144.1 MHz?

☒ **A. CW only**

- B. CW and RTTY
- C. SSB only
- D. CW and SSB

6: T1C01

Which type of call sign has a single letter in both its prefix and suffix?

- A. Vanity
- B. Sequential

☒ **C. Special event**

- D. In-memoriam

7: T1D07

What types of amateur stations can automatically retransmit the signals of other amateur stations?

- A. Auxiliary, beacon, or Earth stations

☒ **B. Auxiliary, repeater, or space stations**

- C. Beacon, repeater, or space stations
- D. Earth, repeater, or space stations

8: T1E09

What type of control is being used when the control operator is at the control point?

- A. Radio control
- B. Unattended control
- C. Automatic control

☒ **D. Local control**

9: T1F01

What type of identification is being used when identifying a station on the air as Race Headquarters?

☒ **A. Tactical call sign**

- B. An official call sign reserved for RACES drills
- C. SSID
- D. Broadcast station

Subelement T2

10: T2A05

How should you respond to a station calling CQ?

- A. Transmit CQ followed by the other station's call sign
- B. Transmit your call sign followed by the other station's call sign
- ✓ **C. Transmit the other station's call sign followed by your call sign**
- D. Transmit a signal report followed by your call sign

11: T2B13

Which of the following is true of the use of SSB phone in amateur bands above 50 MHz?

- A. It is permitted only by holders of a General Class or higher license
- B. It is permitted only on repeaters
- ✓ **C. It is permitted in at least some portion of all the amateur bands above 50 MHz**
- D. It is permitted only when power is limited to no more than 100 watts

12: T2C11

What is meant by the term check in reference to a formal traffic message?

- ✓ **A. The check is a count of the number of words or word equivalents in the text portion of the message**
- B. The check is the value of a money order attached to the message
- C. The check is a list of stations that have relayed the message
- D. The check is a box on the message form that tells you the message was received

Subelement T3

13: T3A08

Which of the following is a likely cause of irregular fading of signals received by ionospheric reflection?

- A. Frequency shift due to Faraday rotation
- B. Interference from thunderstorms
- ✓ **C. Random combining of signals arriving via different paths**
- D. Intermodulation distortion

14: T3B08

What are the frequency limits of the VHF spectrum?

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

15: T3C03

What is a characteristic of VHF signals received via auroral reflection?

- A. Signals from distances of 10,000 or more miles are common
- ✓ **B. The signals exhibit rapid fluctuations of strength and often sound distorted**
- C. These types of signals occur only during winter nighttime hours
- D. These types of signals are generally strongest when your antenna is aimed west

Subelement T4

16: T4A01

Which of the following is true concerning the microphone connectors on amateur transceivers?

- A. All transceivers use the same microphone connector type
- ✓ 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. Un-keyed connectors allow any microphone to be connected

17: T4B11

Which of the following describes the common meaning of the term "repeater offset"?

- A. The distance between the repeater's transmit and receive antennas
- B. The time delay before the repeater timer resets
- ✓ C. The difference between the repeater's transmit and receive frequencies
- D. Matching the antenna impedance to the feed line impedance

Subelement T5

18: T5A05

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

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

19: T5B09

What is the approximate amount of change, measured in decibels (dB), of a power increase from 5 watts to 10 watts?

- A. 2 dB
- ✓ B. 3 dB
- C. 5 dB
- D. 10 dB

20: T5C08

What is the formula used to calculate electrical power in a DC circuit?

- ✓ A. Power (P) equals voltage (E) multiplied by current (I)
- B. Power (P) equals voltage (E) divided by current (I)
- C. Power (P) equals voltage (E) minus current (I)
- D. Power (P) equals voltage (E) plus current (I)

21: T5D10

What is the voltage across a 2-ohm resistor if a current of 0.5 amperes flows through it?

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

Subelement T6

22: T6A05

What type of electrical component consists of two or more conductive surfaces separated by an insulator?

- A. Resistor
B. Potentiometer
C. Oscillator
✓ **D. Capacitor**

23: T6B02

What electronic component allows current to flow in only one direction?

- A. Resistor
B. Fuse
✓ **C. Diode**
D. Driven Element

24: T6C09

What is component 4 in figure T2?

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

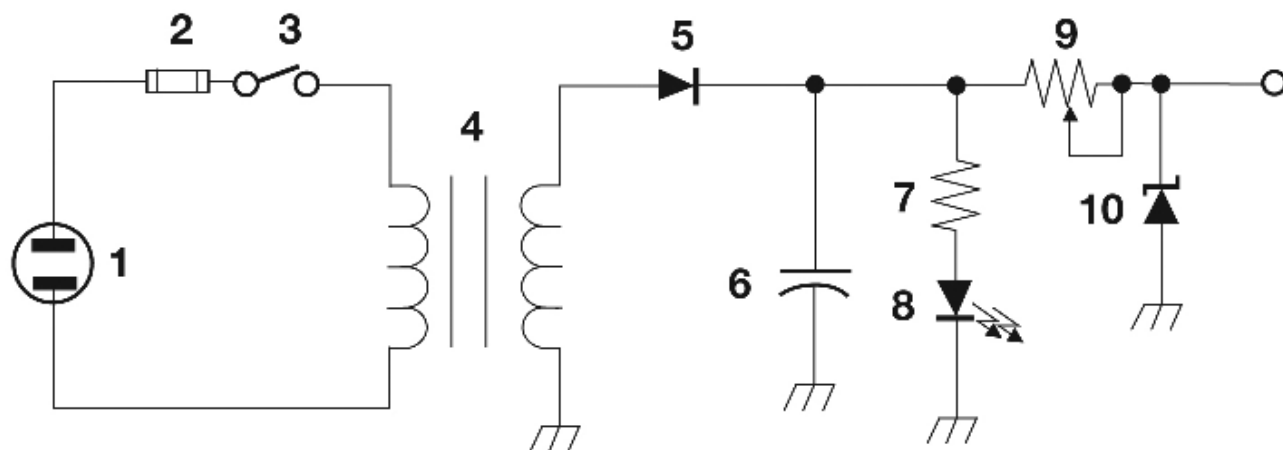


Figure T-2

25: T6D11

What is a simple resonant or tuned circuit?

- ☒ **A. An inductor and a capacitor connected in series or parallel to form a filter**
- ☐ B. A type of voltage regulator
- ☐ C. A resistor circuit used for reducing standing wave ratio
- ☐ D. A circuit designed to provide high fidelity audio

Subelement T7

26: T7A07

What is meant by term PTT ?

- ☐ A. Pre-transmission tuning to reduce transmitter harmonic emission
- ☐ B. Precise tone transmissions used to limit repeater access to only certain signals
- ☐ C. A primary transformer tuner use to match antennas
- ☒ **D. The push to talk function which switches between receive and transmit**

27: T7B08

What should you do if something in a neighbor s home is causing harmful interference to your amateur station?

- ☐ A. Work with your neighbor to identify the offending device
 - ☐ B. Politely inform your neighbor about the rules that prohibit the use of devices which cause interference
 - ☒ **D. All of these choices are correct**
- ☒ **C. Check your station and make sure it meets the standards of good amateur practice**

28: T7C05

What is the approximate SWR value above which the protection circuits in most solid-state transmitters begin to reduce transmitter power?

- ☒ **A. 2 to 1**
- ☐ B. 1 to 2
- ☐ C. 6 to 1
- ☐ D. 10 to 1

29: T7D09

What is the characteristic appearance of a cold solder joint?

- ☐ A. Dark black spots
- ☐ B. A bright or shiny surface
- ☒ **C. A grainy or dull surface**
- ☐ D. A greenish tint

Subelement T8

30: T8A02

What type of modulation is most commonly used for VHF packet radio transmissions?

☒ **A. FM**

- B. SSB
- C. AM
- D. Spread Spectrum

31: T8B02

How much transmitter power should be used on the uplink frequency of an amateur satellite or space station?

A. The maximum power of your transmitter

☒ **B. The minimum amount of power needed to complete the contact**

- C. No more than half the rating of your linear amplifier
- D. Never more than 1 watt

32: T8C09

How might you obtain a list of active nodes that use VoIP?

- A. From the FCC Rulebook
- B. From your local emergency coordinator

☒ **C. From a repeater directory**

D. From the local repeater frequency coordinator

33: T8D01

Which of the following is an example of a digital communications method?

- A. Packet
- B. PSK31
- C. MFSK

☒ **D. All of these choices are correct**

Subelement T9

34: T9A14

Which of the following terms describes a type of loading when referring to an antenna?

☒ **A. Inserting an inductor in the radiating portion of the antenna to make it electrically longer**

- B. Inserting a resistor in the radiating portion of the antenna to make it resonant
- C. Installing a spring at the base of the antenna to absorb the effects of collisions with other objects
- D. Making the antenna heavier so it will resist wind effects when in motion

35: T9B01

Why is it important to have a low SWR in an antenna system that uses coaxial cable feed line?

A. To reduce television interference

☒ **B. To allow the efficient transfer of power and reduce losses**

- C. To prolong antenna life
- D. All of these choices are correct

Results:**You scored 34 correct answers and 1 incorrect answers from a total of 35.****You would have passed the exam! Congratulations!**

e)

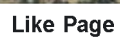

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