# Results for sample technician2014 test paper

Your answers are marked like this:

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

- x 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: T0A08

What safety equipment should always be included in home-built equipment that is powered from 120V AC power circuits?

- A. A fuse or circuit breaker in series with the AC hot conductor
  - B. An AC voltmeter across the incoming power source
  - C. An inductor in series with the AC power source
  - D. A capacitor across the AC power source

#### 2: T0B07

Which of the following is an important safety rule to remember when using a crank-up tower?

A. This type of tower must never be painted

B. This type of tower must never be grounded

# C. This type of tower must never be climbed unless it is in the fully retracted position

D. All of these choices are correct

#### 3: T0C11

#### What is the definition of duty cycle during the averaging time for RF exposure?

A. The difference between the lowest power output and the highest power output of a transmitter

B. The difference between the PEP and average power output of a transmitter

#### C. The percentage of time that a transmitter is transmitting

D. The percentage of time that a transmitter is not transmitting

# Subelement T1

## 4: T1A05

# Which of the following is a purpose of the Amateur Radio Service rules and regulations as defined by the FCC?

A. Enhancing international goodwill

B. Providing inexpensive communication for local emergency organizations

C. Training of operators in military radio operating procedures

xD. All of these choices are correct

## 5: T1B05

# Which 70 cm frequency is authorized to a Technician Class license holder operating in ITU Region 2?

- A. 53.350 MHz
- B. 146.520 MHz
- C. 443.350 MHz
  - D. 222.520 MHz

## 6: T1C11

# If your license has expired and is still within the allowable grace period, may you continue to operate a transmitter on amateur service frequencies?

# A. No, transmitting is not allowed until the FCC license database shows that the license has been renewed

- B. Yes, but only if you identify using the suffix GP
- C. Yes, but only during authorized nets
- D. Yes, for up to two years

### 7: T1D01

# With which countries are FCC-licensed amateur stations prohibited from exchanging communications?

 A. Any country whose administration has notified the ITU that it objects to such communications

B. Any country whose administration has notified the ARRL that it objects to such communications

C. Any country engaged in hostilities with another country

xD. Any country in violation of the War Powers Act of 1934

## 8: T1E03

## Who must designate the station control operator?

### A. The station licensee

- B. The FCC
- C. The frequency coordinator
- D. The ITU

## 9: T1F03

### When is an amateur station required to transmit its assigned call sign?

A. At the beginning of each contact, and every 10 minutes thereafter

xB. At least once during each transmission

C. At least every 15 minutes during and at the end of a communication

D. At least every 10 minutes during and at the end of a communication

# Subelement T2

#### 10: T2A12

# Which of the following is a guideline to use when choosing an operating frequency for calling CQ?

- A. Listen first to be sure that no one else is using the frequency
- B. Ask if the frequency is in use
- C. Make sure you are in your assigned band

#### D. All of these choices are correct

#### 11: T2B02

# What is the term used to describe the use of a sub-audible tone transmitted with normal voice audio to open the squelch of a receiver?

- A. Carrier squelch
- B. Tone burst
- C. DTMF

D. CTCSS

#### 12: T2C04

#### What do RACES and ARES have in common?

- A. They represent the two largest ham clubs in the United States
- B. Both organizations broadcast road and weather information
- C. Neither may handle emergency traffic supporting public service agencies

# D. Both organizations may provide communications during emergencies

# **Subelement T3**

#### 13: T3A01

# 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?

A. Change the batteries in your radio to a different type

**x**B. Turn on the CTCSS tone

C. Ask the other operator to adjust his squelch control

#### D. Try moving a few feet or changing the direction of your antenna if possible, as reflections may be causing multi-path distortion

#### 14: T3B04

#### How fast does a radio wave travel through free space?

#### 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

# 15: T3C08

# What causes tropospheric ducting?

- A. Discharges of lightning during electrical storms
- B. Sunspots and solar flares
- C. Updrafts from hurricanes and tornadoes

D. Temperature inversions in the atmosphere

# Subelement T4

# 16: T4A09

# Which of the following could you use to cure distorted audio caused by RF current flowing on the shield of a microphone cable?

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

# 17: T4B07

# What does the term RIT mean?

- A. Receiver Input Tone
- B. Receiver Incremental Tuning
  - C. Rectifier Inverter Test
  - D. Remote Input Transmitter

# Subelement T5

# 18: T5A08

Which of the following is a good electrical insulator?

A. Copper

- B. Glass
  - C. Aluminum
  - D. Mercury

# 19: T5B06

# If an ammeter calibrated in amperes is used to measure a 3000-milliampere current, what reading would it show?

- A. 0.003 amperes
- B. 0.3 amperes

# C. 3 amperes

D. 3,000,000 amperes

20: T5C01

What is the ability to store energy in an electric field called?

- A. Inductance
- B. Resistance
- C. Tolerance

## D. Capacitance

### 21: T5D04

# What is the resistance of a circuit in which a current of 3 amperes flows through a resistor connected to 90 volts?

A. 3 ohms

### 🗸 B. 30 ohms

- C. 93 ohms
- D. 270 ohms

# Subelement T6

#### 22: T6A11

Which of the following battery types is not rechargeable?

A. Nickel-cadmium

#### B. Carbon-zinc

- C. Lead-acid
- D. Lithium-ion

### 23: T6B08

### What does the abbreviation FET stand for?

#### A. Field Effect Transistor

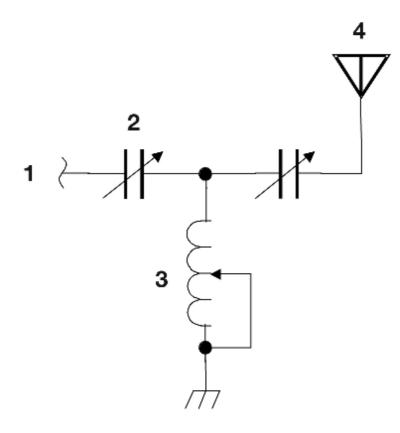
- B. Fast Electron Transistor
- C. Free Electron Transition
- D. Field Emission Thickness

#### 24: T6C11

## What is component 4 in figure T3?

#### A. Antenna

- B. Transmitter
- C. Dummy load
- D. Ground





# 25: T6D07 Which of the following is commonly used as a visual indicator?

## 🗸 A. LED

- B. FET
- C. Zener diode
- D. Bipolar transistor

# Subelement T7

## 26: T7A05

### What is the name of a circuit that generates a signal of a desired frequency?

- A. Reactance modulator
- B. Product detector
- C. Low-pass filter
- D. Oscillator

### 27: T7B09

### What is a Part 15 device?

## A. An unlicensed device that may emit low powered radio signals on frequencies used by a licensed service

B. A type of amateur radio that can legally be used in the citizen s band

C. A device for long distance communications using special codes sanctioned by the International Amateur Radio Union

D. A type of test set used to determine whether a transmitter is in compliance with FCC regulation 91.15

#### 28: T7C12

#### Which of the following is a common use of coaxial cable?

A. Carrying dc power from a vehicle battery to a mobile radio

#### B. Carrying RF signals between a radio and antenna

- C. Securing masts, tubing, and other cylindrical objects on towers
- D. Connecting data signals from a TNC to a computer

#### 29: T7D01

# Which instrument would you use to measure electric potential or electromotive force?

A. An ammeter

- B. A voltmeter
  - C. A wavemeter
  - D. An ohmmeter

# Subelement T8

#### 30: T8A10

# What is the typical bandwidth of analog fast-scan TV transmissions on the 70 cm band?

A. More than 10 MHz

#### B. About 6 MHz

- C. About 3 MHz
- D. About 1 MHz

#### 31: T8B10

#### What do the initials LEO tell you about an amateur satellite?

- A. The satellite battery is in Low Energy Operation mode
- B. The satellite is performing a Lunar Ejection Orbit maneuver

#### C. The satellite is in a Low Earth Orbit

D. The satellite uses Light Emitting Optics

#### 32: T8C13

### What is the Internet Radio Linking Project (IRLP)?

#### ✓ A. A technique to connect amateur radio systems, such as repeaters, via the Internet using Voice Over Internet Protocol

- B. A system for providing access to websites via amateur radio
- C. A system for informing amateurs in real time of the frequency of active DX stations
- xD. A technique for measuring signal strength of an amateur transmitter via the Internet

#### 33: T8D04

### What type of transmission is indicated by the term NTSC?

A. A Normal Transmission mode in Static Circuit

B. A special mode for earth satellite uplink

# C. An analog fast scan color TV signal

D. A frame compression scheme for TV signals

# **Subelement T9**

34: T9A13

Why are VHF or UHF mobile antennas often mounted in the center of the vehicle roof?

- A. Roof mounts have the lowest possible SWR of any mounting configuration
- B. Only roof mounting can guarantee a vertically polarized signal
- C. A roof mounted antenna normally provides the most uniform radiation pattern
  - D. Roof mounted antennas are always the easiest to install

#### 35: T9B05

What generally happens as the frequency of a signal passing through coaxial cable is increased?

- A. The apparent SWR increases
- B. The reflected power increases
- C. The characteristic impedance increases
- D. The loss increases

## Results: You scored 30 correct answers and 5 incorrect answers from a total of 35.

### You would have passed the exam! Congratulations!

e)

#### Click here to take another test.

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