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: T0A07

Which of these precautions should be taken when installing devices for lightning protection in a coaxial cable feed line?

A. Include a parallel bypass switch for each protector so that it can be switched out of the circuit when running high power

xB. Include a series switch in the ground line of each protector to prevent RF overload from inadvertently damaging the protector

2: T0B05

What is the purpose of a gin pole?

xA. To temporarily replace guy wires

B. To be used in place of a safety harness

C. To lift tower sections or antennas

D. To provide a temporary ground

3: T0C10

Why is duty cycle one of the factors used to determine safe RF radiation exposure levels?

A. It affects the average exposure of people to radiation

- B. It affects the peak exposure of people to radiation
- C. It takes into account the antenna feed line loss
- D. It takes into account the thermal effects of the final amplifier

Subelement T1

4: T1A04

Which of the following meets the FCC definition of harmful interference?

- A. Radio transmissions that annoy users of a repeater
- B. Unwanted radio transmissions that cause costly harm to radio station apparatus

C. That which seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations

D. Static from lightning storms

5: T1B08

Which of the following is a result of the fact that the amateur service is secondary in some portions of the 70 cm band?

A. U.S. amateurs may find non-amateur stations in the bands, and must avoid interfering with them

- B. U.S. amateurs must give foreign amateur stations priority in those portions
- C. International communications are not permitted on 70 cm
- D. Digital transmissions are not permitted on 70 cm

6: T1C14

Who may select a vanity call sign for a club station?

- A. Any Extra Class member of the club
- B. Any member of the club
- C. Any officer of the club

D. Only the person named as trustee on the club station license grant

7: T1D02

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

A. During an Armed Forces Day Communications Test

- B. During a Memorial Day Celebration
- C. During an Independence Day celebration
- D. During a propagation test

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: T1F04

Which of the following is an acceptable language to use for station identification when operating in a phone sub-band?

- A. Any language recognized by the United Nations
- B. Any language recognized by the ITU

C. The English language

D. English, French, or Spanish

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: T2B09

Which of the following methods is encouraged by the FCC when identifying your station when using phone?

A. Use of a phonetic alphabet

- B. Send your call sign in CW as well as voice
- C. Repeat your call sign three times
- D. Increase your signal to full power when identifying

12: T2C09

Are amateur station control operators ever permitted to operate outside the frequency privileges of their license class?

- A. No
- B. Yes, but only when part of a FEMA emergency plan
- C. Yes, but only when part of a RACES emergency plan

D. Yes, but only if necessary in situations involving the immediate safety of human life or protection of property

Subelement T3

13: T3A06

What term is commonly used to describe the rapid fluttering sound sometimes heard from mobile stations that are moving while transmitting?

A. Flip-flopping

B. Picket fencing

- C. Frequency shifting
- D. Pulsing

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: T3C12

Which of the following bands may provide long distance communications during the peak of the sunspot cycle?

A. Six or ten meters

- B. 23 centimeters
- C. 70 centimeters or 1.25 meters
- D. All of these choices are correct

Subelement T4

16: T4A08

Which type of conductor is best to use for RF grounding?

- A. Round stranded wire
- B. Round copper-clad steel wire
- C. Twisted-pair cable
- ✓ D. Flat strap

17: T4B06

Which of the following controls could be used if the voice pitch of a singlesideband signal seems too high or low?

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

Subelement T5

18: T5A09

What is the name for a current that reverses direction on a regular basis?

A. Alternating current

- B. Direct current
- C. Circular current
- D. Vertical current

19: T5B12 Which of the following frequencies is equal to 28,400 kHz? ✓ A. 28.400 MHz

- B. 2.800 MHz
- C. 284.00 MHz
- D. 28.400 kHz

20: T5C13

What are the units of impedance?

- A. Volts
- B. Amperes
- C. Coulombs

🗸 D. Ohm s

21: T5D12 What is the voltage across a 10-ohm resistor if a current of 2 amperes flows through it?

- A. 8 volts
- B. 0.2 volts
- C. 12 volts
- D. 20 volts

Subelement T6

22: T6A10

Which of the following battery types is rechargeable?

- A. Nickel-metal hydride
- B. Lithium-ion
- C. Lead-acid gel-cell
- D. All of these choices are correct

23: T6B03

Which of these components can be used as an electronic switch or amplifier?

- A. Oscillator
- B. Potentiometer
- C. Transistor
 - D. Voltmeter

24: T6C12

What do the symbols on an electrical circuit schematic diagram represent? • A. Electrical components

- B. Logic states
- C. Digital codes
- D. Traffic nodes

25: T6D03

What type of switch is represented by component 3 in figure T2?

A. Single-pole single-throw

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

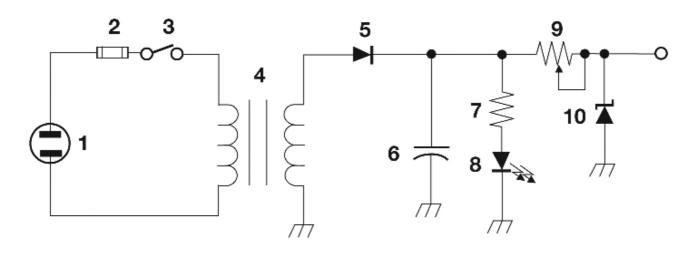


Figure T-2

Subelement T7

26: T7A03

Which of the following is used to convert a radio signal from one frequency to another?

- A. Phase splitter
- B. Mixer
 - C. Inverter
 - D. Amplifier

27: T7B10

What might be the problem if you receive a report that your audio signal through the repeater is distorted or unintelligible?

- A. Your transmitter may be slightly off frequency
- B. Your batteries may be running low
- C. You could be in a bad location
- D. All of these choices are correct

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: 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

xC. About 3 MHz

D. About 1 MHz

31: T8B04

Which amateur stations may make contact with an amateur station on the International Space Station using 2 meter and 70 cm band amateur radio frequencies?

- A. Only members of amateur radio clubs at NASA facilities
- B. Any amateur holding a Technician or higher class license
 - C. Only the astronaut's family members who are hams
 - D. You cannot talk to the ISS on amateur radio frequencies

32: T8C07

What is the maximum power allowed when transmitting telecommand signals to radio controlled models?

- A. 500 milliwatts
- B. 1 watt
 - C. 25 watts
 - D. 1500 watts

33: T8D10

Which of the following can be used to transmit CW in the amateur bands?

- A. Straight Key
- B. Electronic Keyer
- C. Computer Keyboard
- D. All of these choices are correct

Subelement T9

34: T9A05

How would you change a dipole antenna to make it resonant on a higher frequency?

- A. Lengthen it
- B. Insert coils in series with radiating wires

C. Shorten it

D. Add capacitive loading to the ends of the radiating wires

35: T9B08

Why should coax connectors exposed to the weather be sealed against water intrusion?

- A. To prevent an increase in feed line loss
- B. To prevent interference to telephones
- xC. To keep the jacket from becoming loose
 - D. All of these choices are correct

Results: You scored 31 correct answers and 4 incorrect answers from a total of 35.

You would have passed the exam! Congratulations!



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