Gordon West's Pre-Study Q&A for the 2006-10 Technician Class Course

Welcome to your weekend class prestudy homework. Your upcoming weekend class is absolutely NOT a cram session, followed by the test. Rather your weekend course will take your textbook questions and answers and relate them to the real world of ham radio operating.

This prestudy material comes straight out of the Gordon West ***Technician Class*** book for the 2006 through 2010 Element 2 question pool. The fill-in-the-blank questions in this prestudy guide follow the exact order of the book. We even give you page numbers to quickly spot the correct answer!

In addition to the Gordon West ***Technician Class*** book, this prestudy material is covered in the exclusive audio CD course. The CD audio course is a fun way to hear the radio sounds behind some of these questions.

This prestudy homework is fill-in-the blank. Your actual Element 2 written examination will be a multiple choice exam all the easier.

This fill-in-the blank homework also parallels the computer homestudy course. Taking sample exams on the computer is fun, educational, and a double-check that you will do well on the upcoming written examination.

Begin reading over your ***Technician Class*** book, and start filling in the homestudy answers. The page numbers will help! Be sure to bring your completed homestudy to the first class session.

To order the Gordon West ***Technician Class*** book, go to
www.w5yi.org
or call 1-800-669-9594

GETTING INTO HAM RADIO (Pages 1-4)

1. How many hams worldwide? _____
2. How many hams in the United States? _____
3. How many questions on your upcoming Technician Class exam? _____
4. How many bands will your new handheld have? _____
5. What was the world s first and largest antenna tower? _____
6. You will soon talk to astronauts on the _____
7. Ham radio is both a hobby as well as a _____
8. Join your local ham radio club and look for the club s _____

TECHNICIAN CLASS PRIVILEGES (Pages 5-18)

1. Frequency range for VHF? _____
2. Frequency range for UHF? _____
3. Frequencies above UHF are considered _____ waves.
4. Frequency range for sounds we hear? _____
5. 6 meter Technician Class privileges? _____ MHz to _____ MHz
6. 2 meter Technician Class privileges _____ MHz to _____ MHz
7. 1-1/4 meter Technician Class privileges _____ MHz to _____ MHz
8. 70 cm Technician Class privileges _____ MHz to _____ MHz
9. What are the most popular dual band meter bands? _____

A LITTLE HAM HISTORY (Page19-24)

1. Radio has been around for _____years?
2. First ham license issued around _____?
3. In 1979, this requirement was eliminated for operation above 30 MHz: _____ test
4. The FCC restructured our USA ham license on April 15, _____
5. May foreigner obtain a US ham license? _____
6. Highest level of US ham license? _____
7. What Element number do you study for Technician Class? _____
8. Can you jump over the entry level Tech test for the General test? _____
9. Does the Technician entry level require a Morse Code test? ____

GETTING READY FOR THE EXAM (Pages 25-30)

1. Total number of questions on your upcoming multiple choice Technician Class exam? ____
2. Passing score? _____%
3. How many questions could you miss and still pass? _____
4. How many members comprise an examination team? _____
5. Your receive this paper when you pass: _____
6. How many total Technician class questions in the pool? _____
7. How many questions on radio and electronics fundamentals? _____
8. How many exam questions on electrical and RF safety? _____
9. Technician Class subelement T2 covers this topic? _____
10. Gordo s phone number if you need help or inspiration? _____

HAM RADIO AND YOUR LICENSE (P31-38)

1. Who enforces the ham radio rules? _____
2. Ham radio FCC rule Part number? _____
3. One fundamental purpose for ham radio? _____
4. Minimum age to become a ham? _____
5. Three grades of ham radio licenses? _____
6. What does VE mean? _____
7. Licenses are good for _____ years?
8. How long is a CSCE valid for license upgrade purposes? _____
9. Try this web page out for ham radio info and fun: www._____

CALL SIGNS (Page 39-46)

1. New call signs are issued in _____ order.
2. US call signs must begin with which four letters? _____
3. What number would be in a call sign issued to a ham in Florida? ___
4. Identify your station every _____ minutes and when you sign off.
5. What system allows a call sign made up of your initials? _____
6. Call sign lookup internet? www._____ .com

CONTROL OPERATOR DUTIES (P47-52)

1. A control operator must be present when a ham station is used for _____?
2. Repeaters may operate under _____ control.
3. What agreement must be in place to operate in a foreign country? _____

RULES AND REGULATIONS (Pages 53-61)

1. Who enforces our rules and regulations?_____
2. When may you conduct your own business operation over ham radio?_____
3. When are codes and ciphers allowed?_____
4. What about bad or indecent language?_____
5. Generally, is music allowed on the air?_____
6. How much power output SHOULD you run?_____
7. When may the FCC inspect your home station?_____
8. Where to obtain a printed copy of Part 97? www._____org

TECHNICIAN FREQUENCIES (Page 62-69)

1. Top end of voice frequencies? _____ Hertz
2. Frequencies above 20,000 Hertz are considered _____ waves.
3. Velocity of a radio wave in space? _____
4. Another name for cycles per second? _____
5. Kilo means _____ cycles.
6. Mega means _____ cycles.
7. VHF extends from 30MHz to _____ MHz.
8. UHF extends from 300MHz to _____ MHz.
9. 6 meter band limits _____?
10. 2 meter band limits _____?
11. 70 cm band limits _____?

YOUR FIRST RADIO (Page 70-78)

1. Another name for a combined transmitter and receiver _____?
2. This will help you hear your handheld in a crowd? _____
3. Put your favorite frequency in your radio s _____ channel.

4. This control silences background noise _____.
5. Have plenty of these when operating your handheld in the field _____.
6. This device transmits output power in a mobile _____.
7. Go to this page in the book to find equipment sellers _____.
8. Your first radio, a handheld, should have how many bands? _____
9. Two most popular bands in a dual band handheld? _____ and _____
10. Ask the radio dealer to please _____ popular repeater channels in your new equipment.

GOING ON THE AIR (Page 79-87)

1. Don t transmit before you _____?
2. Call this on 6 meters to seek a contact? _____
3. Say this on 2 meters and 70 cm to seek a contact? _____
4. Say this to break into an on-going conversation. _____
5. Popular wearing apparel when operating at a public service event. _____
6. What is that voluntary guideline for specific types of operation on a band? _____
7. What is the Q code for interference from another station? _____
8. What is the Q code for powerline interference? _____
9. What is the Q code for location? _____
10. What is the Q code for change frequency? _____
11. What is the Q code for signing off? _____
12. What is a ham name for finding a hidden transmitter? _____

FUN ON REPEATERS (page 88-101)

1. What device can extend range? _____
2. You need to know this to operate through a repeater? _____
3. Common repeater split for 2 meters? _____
4. Common repeater split for 70 cm? _____
5. Another name for CTCSS? _____
6. Why is the repeater sending Morse code? _____
7. A system of repeaters tied together? _____
8. A repeater system available for everyone to use? _____
9. A repeater system requiring membership? _____

10. All repeaters should be _____ by a local volunteer group?
11. Transmitting and receiving on the same frequency to minimize tying up a repeater ____?
12. Look up your local repeater www._____.com

EMERGENCY! (Page102-114)

1. Which traffic has the highest priority? _____
2. Use this to signal an emergency using Morse code? _____
3. Say this on the international worldwide bands in an emergency? _____
4. Say this in an emergency on a 2 meter repeater? _____
5. Do this after you have checked into an emergency net? _____
6. Are tactical call signs allowed in an emergency? _____
7. Radio traffic on behalf of someone other than the two control operators? _____
8. Which organization usually serves Federal government agencies? _____
9. Which emergency group usually serves Red Cross, Salvation Army and National Weather Service? _____
10. Radio traffic relating to someone s well being?_____

WEAK SIGNALS (Page 115-121)

1. How far is VHF range? _____
2. When communicating simplex in a big city, should you choose UHF of VHF? _____
3. 6 meter long range excitement may be from radio wave refracting off the _____?
4. What mode do we normally use for weak signal work? _____
5. Do we use lower sideband or upper sideband on VHF and UHF? _____
6. What is that letter-number designator assigned to a geographic location? _____
7. Fun webpage for 6 meter activity? www. _____ .org?

DIGITAL & SPACE (Page 122-131)

1. What kind of ham station is tied into the internet? _____
2. What does VoIP mean? _____
3. What system allows radio to radio internet linking? _____
4. What system allows your computer to link into the internet? _____
5. You won t need this for a digital radio station? _____

6. What does PSK mean? _____
7. What system allows you to automatically transmit your position over radio? _____
8. Support this organization that supports satellites? _____
9. What class of license to operate through satellites? _____
10. How much power should you run working through a satellite? _____
11. What does LEO stand for? _____
12. International Space Station may be heard on what 2 meter frequency? _____

BANDWIDTH & INTERFERENCE (Page 132-141)

1. Emission with narrowest bandwidth?_____
2. Typical bandwidth of an FM signal?_____
3. What is being transmitted using NTSC?_____
4. Bandwidth for a single sideband voice signal?_____
5. A break in your cable TV coax could lead to _____?
6. What type of connector is on cable box coax? _____
7. What filter goes on a TV for outside antenna reception? _____
8. What kind of filter goes on a telephone to reduce interference? _____
9. What type of filter goes on the power cable to minimize alternator whistle? _____
10. Use this to help track down noise spurs? _____

VOLTS & AMPS (PAGE 142-149)

1. Electromotive force (EMF), voltage, is represented by what single letter? _____
2. How many volts in a car battery? _____
3. Current in amps is represented by what letter? _____
4. Direct current, out of a battery, flows in just _____ direction.
5. What is a good conductor? _____
6. What is a good insulator? _____
7. The unit of resistance is the ohm, represented by which letter? _____
8. Draw the Ohm s Law magic circle._____
9. Pages 145 and 146 make it easy to compute Ohm s Law, right? _____
10. The unit of power is the watt. Which letter represents power? _____
11. Draw the magic circle, easy as P I E _____
12. How many volts in a kilovolt? _____

ANTENNAS (Pages 150-159)

1. What is the relative performance of a handheld s rubber duck antenna? _____
2. When communicating through a repeater, keep you antenna straight _____.
3. How long is a ¼ wavelength 2 meter antenna? _____ inches
4. What do they call a ½ wave antenna horizontal to the earth? _____
5. What do they call an antenna that beams energy in one general direction? _____
6. What is the impedance of ham coax cable? _____
7. Is an SWR reading 3:1 good or bad _____
8. What type of antenna purposely does not radiate a signal? _____

YOUR SAFETY (Pages 160-170)

1. Voltage above what level is considered dangerous? _____
2. The green wire in a three wire house plug connects to where? _____
3. What value fuse would you use to replace a blown 5 amp fuse? _____
4. Watch out for this when putting up any antenna? _____
5. Make sure your radio station is well _____
6. Wear these when working on the ground with someone up a tower above you _____.
7. What will concentrated radio waves do to the body at microwave frequencies? _____
8. If you touch a transmitting antenna, you could get_____?
9. What is the maximum power level above 30 MHz before you need to conduct a formal RF exposure evaluation? _____
10. The greater the transmit, the _____ radiation exposure.

CW THE DOTS AND DASHES (Pages 171-182)

1. CW will always be a ham radio signaling art mainly because the signal is easy to transmit and receive. T/F _____
2. The FCC is considering eliminating the CW test. T/F _____
3. Currently, what is the CW test speed for General and Extra Class Upgrades? _____
4. What CW character is dash-dash-dot-dot? _____
5. What do they call the method of sending CW characters at 15 wpm, spaced to 5 wpm? _____
6. The best way to learn CW is by sound, not sight. T/F _____

GETTING READY FOR THE TEST (Pages 183-192)

1. How many examiners, minimum, comprise an accredited test team? _____
2. Bring identification. Also bring a cash test fee of approximately $ ____
3. Could the test questions be reworded from what is in the book? ____
4. What FCC form will you fill out? _____
5. When can you go on the air after passing the test? _____
6. Draw a picture of your face when your examiners say you have passed your entry level Element 2 Technician class exam. Don t forget the eyebrows!

Congratulations on completing your prestudy assignment! If you were able to complete most of this homework, you ll do just fine on you upcoming Technician Class exam.

Be sure to send me your information, found on page 192, for your graduation certificate and manufacturer coupons and band charts. Please don t forget the stamps on the inside of a LARGE envelope. Let me know how well you did on the test.

Continue to review the book before class and before taking your exam. I look forward to hearing from you soon!

Gordon West, WB6NOA

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For the Gordon West 2006-10 Technician Class

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