**Technician Class Course: Homework 3**

**Directions:**

1. Read the book pages specified and fill in the answers to the questions below.

2. While reading also **highlight** the correct answer to each FCC test question and Gordon’s keywords (in blue) in the explanation. *Do not read the incorrect answers!*

3. No sample tests yet! Re-read past chapter questions & answers once.

4. Watch the following videos on Youtube:
   - [http://www.youtube.com/watch?v=yC0u42MnMdM](http://www.youtube.com/watch?v=yC0u42MnMdM)
     
     **Brief summary:**

   - [http://www.youtube.com/watch?v=1HfvmU_utI8](http://www.youtube.com/watch?v=1HfvmU_utI8) (up to 5:30)
     
     **Brief summary:**

   - [http://www.youtube.com/watch?v=RDKUixM9zos](http://www.youtube.com/watch?v=RDKUixM9zos) (up to 1:25)
     
     **Brief summary:**

   - [http://www.youtube.com/watch?v=zYS9kdS56l8](http://www.youtube.com/watch?v=zYS9kdS56l8)
     
     **Brief summary:**

**EMERGENCY! (Pages 86-91)**

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 (Pages 92-98)

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 (Pages 99-111)

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 (Pages 112-125)

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 (Pages 126-135) – part 1**

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? _________________________________