Atmo 201 Midterm 2 study guide

This exam is not explicitly cumulative, and covers material from chapters 4-7 and all material from class after exam 1 through Monday 4 October. Material introduced in the first part that is also covered in chapters 5-8 will be included. Slides covering chapter 6 and the second part of chapter 7, designed by me, are on the website.

General info (copied from exam 1 guide)
The exam will be multiple-choice, with a (large) scantron required. The distribution of questions will approximately be proportionate to the amount of class time spent on a general topic. Most questions are drawn from the reading, but selected based on what was covered and how it was covered in class. However, coverage of the material in class is the best indicator it may be on the exam. Below, I will indicate specifically which parts of chapters are most (or least) important. I will note review and other questions that will best help you study what I want you to learn. I will note sections as **emphasize** (more likely to result in a question on the exam), **informational** (not likely to independently generate a question, but may be referred to later in the class), or **reference** (majors and other interested parties should read and enjoy). All other sections are of average likeliness to lead to a question (note that “section” includes “focus on …” and pretty much anything written in a chapter.

A good way to study a chapter is to review your notes and/or the posted class slides; look at the review questions briefly; read the chapter; answer the review questions in writing, rereading parts of the chapter as needed; make sure you understand the “key terms” that come from assigned parts of chapters; reread the “brief review” and “summary” sections.

Finally, you may bring one page (one side of a letter-sized piece of paper) of handwritten notes to the exam, and no calculator will be needed or allowed. Any material you have difficulty with should be written there. Another good study technique is to write out a many-page “cheat sheet” while studying, covering all the material; then write a 1-page version with the hardest stuff; only the latter may be used during the actual exam.

**Chapter 4**
* Questions for review: 1-12, 16-19
* Questions for thought: 2, 6, 7
Circulation of water in the atmosphere
The many phases of water
Evaporation, condensation, and saturation
Humidity (**emphasize** everything before ‘relative humidity and human discomfort’)
Vapor pressure and boiling …
Computing relative humidity… (**reference**) Is humid air heavier than dry air?

**Chapter 5**
* Questions for review: 1-6, 8-16, 18-22
* Questions for thought: 6
The formation of dew and frost
Condensation nuclei
Haze
Fog (emphasize)
Why are headlands foggier than beaches?
Foggy weather
Fog that forms by mixing
Fog dispersal (informational)
Clouds (emphasize)
Measuring cloud ceilings (informational)
Satellites do more than observe clouds

Chapter 6
* Questions for review: 1-22
* Questions for thought: 2
Atmospheric stability
Determining stability (emphasize)
Cloud development (emphasize)
Determining convective cloud bases (informational)
Adiabatic charts (reference)

Chapter 7
* Questions for review: 1-11, 14-15, 17-20, 22
* Questions for thought: 1-4
Precipitation processes (emphasize)
The freezing of tiny cloud droplets
Does cloud seeding enhance precipitation?
Precipitation types (emphasize)
Snowing when the air … (informational)
Sounds and snowfall (informational)
Aircraft icing (informational)
Measuring precipitation (reference, except Doppler—regular1)

1) Only on the exam if also covered in class Monday