AST 1A
INTRODUCTION TO THE SOLAR SYSTEM
Winter 2018

Final Review

Everything is fair game, but you may want to focus on the following. Also, review the book, lecture notes, asterisked values, quizzes, vocabulary terms, and review questions. Good luck!

Chapter 1
structural composition and order, distances, sizes and light travel times, units of measure, perceptions of observations "stars in stellar photographs"

Chapter 2
definitions, Greek letter designation, magnitude scale, angular measure, small angle formula, precession, solar motion, diagrams, movement of rise/set position, seasons, planet motions

Chapter 3
rotation and revolution of moon, sidereal month, synodic month, lunar phases, eclipses, definitions, prediction of eclipses, saros cycle

Chapters 4 & 5
history, Babylonian contribution, Pythagoras, Plato, Aristolte (forced/natural motions), stellar parallax, Aristarchus, Hipparchus, definitions, Ptolemy, Copernicus, Brahe, Kepler, planetary laws of motion, Galileo, rates, Newton, laws of motion, universal law of gravity, tides, energy, angular momentum

Chapters 6 & 7
Light: wavelength/frequency/EM spectrum
Telescopes: refraction, reflection, focal length, resolution, magnification, atmospheric turbulence, seeing, interferometer
Wein's law, Stephan-Boltzmann law, temperature, spectroscopy, Kirchhoff's laws, Bohr model of hydrogen atom, excitation/ground state

Chapter 19
origin of the solar system, solar nebular hypothesis, conservation of energy, heat of formation, terrestrial planets, Jovian planets, asteroids, asteroid belt, meteor/ite/oid, Kuiper belt, radioactive dating of Earth, moon, meteorites, age of solar system, steps of solar system formation, common direction of revolution of planets