Physics 9 Final Exam Study Guide

The final will consist of 100 MC/TF questions: 30 covering Chapters 1-6, and 70 covering Chapters 7-14 and 24. Please bring a blue scantron and enough No. 2 pencils to complete the exam. The exams will come in forms A, B, C, D but will contain identical questions and choices, only scrambled. Be sure to bubble in the form you got.

Chapter 1
Age and structure of the universe
Distance scales
Expanding universe: evidence

Chapter 2
Ecliptic
Phases of the moon
Measuring angles
Seasons
Tides: origin

Chapter 3
Ptolemaic system
Copernican system
Kepler's laws
Primitive astronomies

Chapter 4
Conservation laws
Newton's laws
Law of universal gravitation
Speed, velocity, and momentum
Kinetic and potential energy

Chapter 5
Spectra: types
Spectral lines: origin
Kirchoff's laws
Spectral resolution: meaning
Doppler shift
Atomic structure

Chapter 6
Telescopes: types
Telescopes: functions
Space telescopes: advantages

Chapter 7
Solar system: contents
Solar system: orbits
Asteroids: location
Kuiper belt: location
Oort cloud: location

Chapter 8
Solar nebula theory
Formation of planets and planetesimals
Condensation sequence
Formation of terrestrial planets
Formation of Jovian planets
Origin of Kuiper belt objects

Chapter 9
Internal structure of a terrestrial planet
Four geologic processes shaping planet surfaces
Consequences of tectonics
Consequences of volcanism

Chapter 10
Origin of planetary atmospheres
Evolution of planetary atmospheres
Composition of planetary atmospheres
Greenhouse effect

Chapter 11
Internal structure of jovian planets
Moons and rings: origins
Atmospheric features of jovian planets

Chapter 12
Pluto's place
Basic definitions of comets, asteroids, meteors and meteorites
Parts of comets
Meteor showers: origin
Types of meteorites

Chapter 13
Extrasolar planets
Methods of detection
Key findings

Chapter 14
Sun's internal structure
Sum's atmosphere structure
Sunspots
Solar cycles
Solar neutrino problem

Chapter 24
Conditions for life
SETI
What the fossil record tells us
Drake equation