## **Astronomy Final Exam**

You are to choose <u>four</u> of the six topics below an answer them. You may illustrate, bullet, write an essay, etc. to <u>FULLY EXPLAIN</u> the topic. You may do additional topics for extra credit. I **HIGHLY** suggest answer all 6 for the extra credit.

## **Topics:**

- 1. **The History of Astronomy**: Key people, events, changes in knowledge, theories, and misconceptions, heliocentric, geocentric, technology invented, and models created. Talk about the 10 that were discussed in class.
- 2. **Meteors, asteroids, comets:** creation, types, sizes, impact, relations to each other, location in space, orbits, showers, myths, collision with Earth, past extinctions, composition, evidence left on Earth, formation, etc.
- 3. **Black Holes**: Predecessor, formation, structure, related theories, time and space implications, accretion disk, detection, light behavior, gravity, models of them, sizes, time travel, wormholes, features, white holes, Quasars, Blasars, Radio Galaxy, etc.
- 4. **Misconceptions in Astronomy**: gravity in space, getting rid of space junk, death in space, why a spaceship "burns" in the atmosphere, the 10 discussed in class, misconceptions with ancient astronomy, astrology, and comets.
- 5. **Solar System**: Size and scale model, order of planets, atmospheres, plate tectonics, magnetic fields, unique characteristics of each planet, distances from each other, formation, densities, moons and satellites, rings, terra-formations, possibility of life on another planet, terraforming, biocompatibility, formation of them and solar system, age, dwarf planets, asteroid belt, oort cloud, kuiper belt, etc.
- 6. **Galaxy/Cosmology**: types and sub types, ages, stars forming within them, bulge, halo, distance across, dwarf galaxy, open clusters, globular clusters, collisions, color, orientation, sub-classes, Big Bang, expansion of space, Hubble's Law, local group, clusters, possible fate of the Universe, etc.