**Review Sheet for Third Exam**

**ASTR 1200**

This sheet is to help you prepare for the third exam. It is not a “sample” of the exam. Instead it is designed to help you focus on the most important aspects of a large body of material.

1. What is the Schwarzschild Radius? How can we distinguish black hole candidates from neutron stars. What is the name of the best black hole candidate? What is Hawking radiation? Where is the biggest black hole in the Milky Way and what is it called? What is time dilation? What is an event horizon? Why can not pass through an edge of black hole from the inside?

2. What is a nova? What is a burster? What is a dwarf nova? What is a classical x-ray binary?

3. Draw a schematic picture of the Milky Way as viewed from the side. Label all the main features including the position of SagA\*.

4. Explain Reflection Nebulae, HII regions, Molecular Clouds, interstellar dust.

5. Explain the phases of the development of a supernova remnant. What is their importance to the interstellar medium? To star formation?

6. What are superbubbles? What is the galactic halo?

7. What causes spiral arms? Why are the arms bluer? Where are the molecular clouds to be found? Where are most of the HII regions? Why is the bulge yellower?