Exercise E1: Finding Your Way Around the Sky

Student name: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: What is the orientation of the Big Dipper asterism in winter?

- □ **a.** It appears upside down.
- **b**. It sits with its handle downwards.
- **c.** It appears to sit upright, resting upon its bowl.
- **d**. The Big Dipper is not visible in the winter.

Question 2: Polaris is part of which constellation? (Hint: Select Constellations from the Settings view to display IAU Boundaries and Show Names).

- □ a. Cepheus
- \Box **b**. Draco
- **c**. Ursa Minor
- **d**. Ursa Major

Question 3: What happens to the position of Polaris in your sky as time advances over a period of a year?

- a. It remains absolutely fixed, and does not change its position.
- **b**. The north celestial pole revolves about Polaris.
- **c.** It revolves in a very small circle around the north celestial pole.

 \Box d. Its altitude changes by + and - 23.5 degrees throughout the year because of the tilt of the Earth's spin axis.

Question 4: What is the relationship between the altitude of Polaris and the latitude of the observer?

□ a. There is no relationship between these two parameters.

□ **b**. The altitude of Polaris is almost the same as the latitude of the observer.

□ c. The altitude of Polaris is almost the equal to 90 degrees minus the latitude of the observer.

□ **d**. The latitude equals the altitude of Polaris minus the altitude of the North celestial Pole.

Question 5: What is the nearest star to the south celestial pole, as shown in the Main Window? (Hint: Use the Search facility to locate these stars and zoom in towards the SCP. Then use the

Angular Separation Tool to measure their angular distance from the SCP.)

- 🗆 a. Chi Octantis
- □ **b**. HIP 60041
- □ **c.** HIP112355
- 🗆 d. Sigma Octantis