**GEOG 310 Exercise One (F2022)**

 **ENERGY - TEMPERATURE**

**5 points**

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student#:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Earth-Sun Geometry* (½ point each answer)

1. Assume that it is the Northern Hemisphere summer solstice, and answer the following

 questions:

 a. What is the approximate date?

 b. What is the approximate solar declination?

 c. What is the length of the daylight period at the Antarctic Circle?

2. Assume that it is December 21st, and answer the following:

 a. What is the approximate solar declination?

 b. What is the length of the daylight period at the Arctic Circle?

3. If it is the time of an equinox, how does day length vary from latitude to latitude?

 *Temperature* (½ point each answer)

1. On the world map provided mark the following as directed, using a global rather than regional

perspective (by this I mean consider locations very generally, *recognizing only low, middle, or high latitudes, and land or water to distinguish areas*--don’t let known local or regional details influence your choices):

 a. with a “L”, an area that is representative of places with the largest annual temperature

 ranges on Earth, and briefly explain why.

 b. with a “S”, an area that is representative of places with the smallest annual temperature

 ranges on Earth, and briefly explain why.

 c. with a “JAN”, an area that is representative of places with the largest thermal gradients

 on Earth in January, and briefly explain why.

 d. with a “JUL”, an area that is representative of places with the largest thermal gradients

 on Earth in July, and briefly explain why.

