

Name: _____

ATMO 2316 – Severe and Hazardous Weather
Quiz #2

1) List two ways that the relative humidity can be increased.

Increasing the amount of water vapor, decreasing the temperature

2) If a cloud is dark on an infrared image but bright on a visible image, is this a high cloud or low cloud?

A low cloud (the radiative temperature is similar to the surface). Think of the clouds we saw off of the California coast in lecture.

3) What is a weather satellite measuring when it creates a:

visible image – *reflected solar radiation*

infrared image – *emitted infrared radiation (from Earth, absorbed by clouds and re-emitted according to the cloud temperature)*

water vapor image – *emitted infrared radiation (from Earth, absorbed and re-emitted by water vapor, specifically)*

4) What is a geostationary orbit?

A geostationary orbit is one where a satellite maintains the same position above the earth (rotating at the same speed as the earth).

5) Qualitatively, what is the relative humidity if the dewpoint temperature and the air temperature differ substantially? What if the temperature and the dewpoint temperature are close in value?

If temperature and dewpoint are close together, the relative humidity is high

If they are far apart, the relative humidity is low