

- 1) The Stefan-Boltzmann Law gives the relationship between:
  - A) solar energy and distance.
  - B) moisture and long-wave radiation.
  - C) emissivity and wavelength.
  - D) the intensity of radiation and the temperature of an object.
  
- 2) The troposphere makes up what fraction of the atmosphere's mass?
  - A) 30%.
  - B) 50%.
  - C) 60%.
  - D) 80%.
  
- 3) The four layers of the atmosphere from the top down are:
  - A) thermosphere, stratosphere, mesosphere, troposphere.
  - B) thermosphere, mesosphere, stratosphere, troposphere.
  - C) stratosphere, mesosphere, thermosphere, troposphere.
  - D) troposphere, stratosphere, mesosphere, thermosphere.
  
- 4) Wind systems are generated by:
  - A) the interaction of the atmosphere with the charged particles of the solar wind.
  - B) different pressures in different places.
  - C) the drag on the atmosphere caused by the earth's rotation.
  - D) the movements of ocean currents.
  
- 5) The greenhouse effect warms up Earth's surface temperature by:
  - A) 13 degree C.
  - B) 33 degree C.
  - C) 53 degree C.
  - D) 73 degree C.
  
- 6) The Coriolis force:
  - A) is caused by pressure gradient forces.
  - B) affects the speed of motion.
  - C) is constant.
  - D) affects the direction of motion.
  
- 7) The radiation emitted by Earth:
  - A) had its origin in radioactive elements in the earth's interior.
  - B) is primarily absorbed by the atmosphere.
  - C) has little effect on the earth's energy budget.
  - D) is in the form of radio waves.

- 8) Sunsets are red for all of the following reasons except:
- A) red light has more energy than blue light.
  - B) Rayleigh & Mie scattering.
  - C) light has to travel through more atmosphere to reach the observer.
- 9) At the theoretical Absolute Zero (Zero degrees Kelvin),
- A) all molecular motion stops.
  - B) molecular motion is at a minimum.
  - C) atoms implode.
- 10) Geostrophic flow:
- A) occurs in atmospheric levels with substantial friction.
  - B) occurs when the pressure gradient force equals the Coriolis force.
  - C) can occur in all levels of the atmosphere.
- 11) A missile launched due south in the Northern Hemisphere will be deflected toward:
- A) east.
  - B) west.
- 12) Which of the following gases is not a greenhouse gas:
- A) carbon dioxide.
  - B) nitrous oxide.
  - C) water vapor.
  - D) methane.
  - E) oxygen.
- 13) Specific humidity:
- A) is a useful measure for comparing water vapor at two different locations.
  - B) is the same as the relative humidity.
  - C) changes as a given mass of air expands.

# Answer

1	d
2	d
3	b
4	b
5	b
6	d
7	b
8	a
9	a
10	b
11	b
12	e
13	a