

## Carnival: Influences on Climate

**Directions:** Answer the multiple choice questions.

### Questions

1. At what latitude are temperatures generally the highest?  
at the equator  
at the poles  
just north and south of the equator  
just above the south pole
2. What is latitude?  
distance east and west of the equator  
distance north and south of the equator  
distance above sea level  
distance up a mountain
3. What places are generally more dry and arid?  
where cold air warms and rises  
where cold air descends  
where warm air moves over the land  
where warm and cold air mix
4. What is albedo?  
distance from sea level  
amount of water that the air can hold  
amount of sunlight that a surface reflects  
distance from the poles
5. What is the rain shadow effect?  
observation that the side of a mountain facing the coast has more rain  
observation that some areas have more sunlight than others  
differences in precipitation for high and low latitude areas  
change in climate due to the oceans
6. How does altitude affect air temperature?  
Air temperature increases with height.  
Air temperature decreases with height.  
Air temperature becomes more random with height.  
Air temperature is not affected by height.
7. Which has the highest albedo?  
snow  
forest  
grassland

swamp

8. Compared to the continents, areas near the oceans usually have  
more extreme climate  
much colder climate  
more moderate climate  
drier climate

### Hints

1. Hint: Remember that the equator has a surplus of solar radiation.
2. Hint: Latitude values are expressed in degrees north or south.
3. Hint: Remember that cold air is dense and dry.
4. Hint: Areas of high albedo reflect lots of sunlight.
5. Hint: The rain shadow effect is seen with mountains.
6. Hint: The tops of mountains are colder than the lower parts.
7. Hint: The polar ice caps have very high albedo.
8. Hint: The oceans carry heat all over the globe.

### Answers

1. at the equator
2. distance north or south from the equator
3. where cold air descends
4. amount of sunlight that a surface reflects
5. observation that the side of a mountain facing the coast has more rain
6. Air temperature decreases with height.
7. snow
8. more moderate climate