8-4 Test Questions

Here are example questions that will appear on your test many of them will be similar but some will also be expanded to need answers in 2-3 sentences. Please look through your notes as well as this Review.

**Q1: What is an air mass? Describe two certain kinds of air masses.**

**A1: Airmass:** A large volume of air in which temperature and humidity are nearly the same in different locations of the same altitude. (Definition on test are to be leaninent.)

Answer can have **2** of the following points and their description:

* **Continental:** Forms over land. Air becomes dry as it loses moisture to the dry land below it.
* **Maritime:** Forms over large bodies of water. Air becomes moist as it gains moisture from the water vapor coming from below it.
* **Tropical:** Forms near the equator; air becomes warm as it gains energy from the warm land below it.
* **Polar:** Forms far away from the equator. Air becomes cool as it loses energy to the land and water below it.

**Q2: Define a front. Explain two different types of fronts, including one effect of each formation of selected air masses.**   
  
**A2:** **Front**: a boundary between air masses.

Answer can have **2** of the following types of fronts and their description.

* **Cold front:** Occurs when a cold front moves forward, warmer air is pushed upward. It causes condensation to thicken and *forms clouds* and *precipitation*.
* **Warm fronts:** Occurs when warm air moves gradually up and over a mass of denser and colder air. Then, moisture in the warm air condenses along the front *producing clouds*.
* **Stationary fronts:** Occur when air masses first meet or when a cold or warms front stops moving. The border between the two fonts stay stationary - not moving. If one front moves, the stationary font gets names after it.

**Q3 :** **Define low-pressure systems. Describe how they form. List one effect of low-pressure systems.**

**A3: Low-pressure systems:** a large weather system that surrounds a center of low pressure.

* **Formation of low-pressure systems:** It forms when air moves around and inward toward the lowest pressure and then up to higher altitudes. The upward motion of the air lowers the air pressure further, and so the air moves faster. *(Answers on test to be lenient compared to listed answer).*
* **Effects of low-pressure systems:** Student may have similar answers to these listed below:
  + Winds
  + Weather changes
  + Stormy weather
  + Storms
  + Tropical Storms

**Q4: What are the differences between the wall and the eye of a hurricane? State and, if possible, explain your differences.**  
  
**A4:**

* **The Eye:**
  + Found in the middle of the hurricane.
  + The calmest region in a hurricane because the wind sinks to the bottom
* **Hurricane Eye Wall:** 
  + It borders the eye of a hurricane.
  + Ring of tall thunderstorms that produce heavy rains and very strong wind are found there, because all the wind is rushing to the bottom of the hurricane.

**Q5:** **What is the source of a hurricane's energy? What are some effects of hurricanes? List 4 and define one, if a definition is applicable.**   
**A5:** A hurricane’s energy comes from warm water in a low-pressure center.

* **Effects of Hurricanes:**
  + Can lift cars, uproot trees, and tear the roofs of buildings.
  + Hurricanes also create tornadoes that do more damage.
  + Hurricanes can also cause over-flooding in rivers.

**Storm Surge:** An effect of hurricanes in which they cause ocean waters to rise several meters and then recede, sucking back land and soil with it. (Answer on test is to be lenient)

**Describe 3 of the 5 main precipitations**  
1 Rain, forms from water droplets or ice crystals that melt when they fall  
2 Freezing rain is rain that freezes when it hits the ground or other surfaces  
3 Sleet, forms from ice crystals that merge in clouds

**What is humidity?**  
The amount of water vapor in the air

**What is the biggest cloud and its type?**  
The cumulonimbus cloud, its type is cumulus

**How is acid rain formed?**  
Acid rain is formed by factories and automobiles release sulfur dioxide and nitrogen oxide into the air these gases combine with water vapor forming acid rain.

## 1.3 & Greenhouse Effect

**1: Why is the way of warming the Earth's surface referred to as the greenhouse effect?**

A: The way of warming earth's surface is referred to as the greenhouse effect because Earth's surface traps in heat the same way the greenhouse traps heat.

**2:Define Trifluoromethyl Sulphur Pentafluoride:**

A; Has most potential (most dangerous) out of all greenhouse gases, but there is very little it barely causes an effect on Global Warming (only first part is required)

**3: Why are greenhouse gases important?**

A: They are important because they protect life on earth from harmful sun rays.

**4: How does the Earth stay warm even though the sun is away?**

A: Earth works like a green house. So when warm sun rays come to earth they are trapped inside. Since the gases are trapped inside, earth is warm even if the sun is far away.

## Project 3 2.1 & 2.2

1.**Where does hot air go and rises?**

the equator

2.**What are the horse region?**

a high pressure zone

3.**What wind comes from the west?**

Westerlies

4.**Explain the processes of the wind cycle?**

Hot air rises from the equator and goes to the troposphere and cold air comes down and goes to the polar regions finally goes to the equator and repeats.

## Test Questions Group 6 Weather Patterns & Storms

1. **Describe a tundra climate.**
2. **List 3 types of storms and explain what they are.**
3. **How is an air mass' characteristic determined? Give an example.**
4. **Describe a desert climate.**
5. **What happens when heat is not equally distributed on Earth?**