Questions

- 1. Define/draw a convection cell (where are the high and low pressure spots?)
- 2. What does the ozone layer do for us?
- 3. What is the basis for the temperature layer divisions?
- 4. What is the ionosphere used for?
- 5. List the gases in the homosphere (including percentages.)
- 6. List the temperature layers of the atmosphere from the ground up.
- 7. What is an isobar?
- 8. What cloud sequence indicates a warm front?
- 9. What does the Coriollis effect cause in the Northern hemisphere?
- 10. Why does moist air result in lower pressure?
- 11. Explain the greenhouse effect.
- 12. What is a front?
- 13. What are two other names for hurricanes?
- 14. Describe three details about a tornado.
- 15. How does frost form?
- 16. Draw a sea breeze including what is warmer and what pressure is where.
- 17. How do you determine how far away a thunderstorm is?
- 18. Define climate.
- 19. List three main climate controls.
- 20. List and describe the three main cloud types.

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Answers

- 1. A circular motion of air due to pressure differences:
- 2. Absorbs the harmful, cancer-causing ultraviolet rays from the sun.
- 3. The way the temperature changes in each layer (ie decreases with height in troposphere, etc)
- 4. To bounce radio waves off of to other parts of Earth
- 5. N 78%, O 21%, Ar <1%, CO₂ 0.03%, other 0.01%
- 6. Troposphere, stratosphere, mesosphere, thermosphere
- 7. A line connecting points of equal pressure
- 8. Cirrus, thickening to stratus, and maybe nimbostratus
- 9. Causes the winds in the northern hemisphere to veer to the right
- 10. Water vapour weighs less than the nitrogen that it replaces in a given volume
- 11. The sun sends short waves to the Earth which have no trouble getting through the atmosphere. The Earth absorbs the rays and re-emits as longer waves that get absorbed by the CO₂ and H₂O vapour
- 12. The line between 2 air masses
- 13. Willy-willies, baguios, cyclones, typhoons
- 14. Compact, circular storm, funnel shaped, travels 40-65 km/hr, forms over land, damage where touches down only, finger of God, satan's tail, low pressure zone, from thunderstorms
- 15. When the ground is freezing and colder than the air, it cools the air below its dew point and the H₂O vapour in the air condenses directly to solid ice crystals
- 16. Sea breeze
- 17. See the lightning and count until you hear the thunder: every 3 seconds = 1 km
- 18. Average weather of an area
- 19. Latitude, altitude, prevailing winds, topography, distance from large bodies of water, near ocean currents
- 20. Cumulus (fluffy), stratus (low, sheet-like), cirrus (high, feathery)

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