

### Meteorology Test 3

Name:

1. Dark spots on the photosphere of the sun are called \_\_\_\_\_. They are slightly (warmer, cooler) than the rest of the photosphere and are associated with (increased, decreased) energy output from the sun.
  
2. On these dates, the Northern and Southern Hemisphere receive the same amount of sunlight.
  
3. Name where each type of air mass can form:
  - cP:
  
  - mP:
  
  - mT:
  
  - cT:
  
4. Which of the above air masses causes the wet and chilly weather where we live?
  
5. The combination of \_\_\_\_\_ and \_\_\_\_\_ gives you the apparent temperature.

6. The wind chill index takes into consideration \_\_\_\_\_ and \_\_\_\_\_ to tell you how cold the air actually feels.

7. Give a small description of each of the following regional wind patterns and where they are located:

- Chinook:
  
- Haboob:
  
- Santa Ana:
  
- Sirocco

8. What are the four different units of air pressure measurement?

9. What is the average air pressure at sea level?

10. What three important factors tell you how strong winds will be and where they will blow?

11. What general direction do jet streams blow?

12. What is a wind shear?

13. Sailors refer to a region of the ocean as “the roaring 40s”. Where is this region, and what atmospheric condition does the nickname refer to?

14. The Intertropical Convergence Zone is where the \_\_\_\_\_ converge towards the equator. A satellite photo shows this area as a band of white clouds. This area is also known as \_\_\_\_\_ by sailors.
15. Water phase changes: When water changes from ice to vapor, it is called \_\_\_\_\_. When it changes from vapor to ice, it is called \_\_\_\_\_.
16. What type of energy is required for water to evaporate?
17. Give three examples of items that could serve as condensation nuclei.
18. How does upslope fog form?
19. How big is a typical cloud droplet and raindrop?
20. Stratus clouds indicate a (stable, unstable) atmosphere.
21. What is graupel? How does it form?
22. Why are clouds white?
23. Beams of light that appear to fan out behind clouds are called \_\_\_\_\_.
- What is this atmosphere phenomena created by?
24. How do volcanoes create colorful sunrises?
25. Who was the first person credited to use the word "Meteorology"?