

Questions: Atmospheric Science

1. What are some of the most common atmospheric problems caused by pollutants from human activity?
2. What are the names of the equations and principles used by atmospheric scientists to model fluid flow?
3. What is the difference between passive and active remote sensing?
4. Name some examples of remote sensing measurements
5. Name some examples of satellite-based instruments used in remote sensing applications
6. What is the most common display of atmospheric electricity?
7. What are the three different types of lightning discharge?
8. Of the 3 types of lightning, which is the least common?
9. Of land and ocean, where do most lightning strikes occur?
10. At what latitudes do most lightning strikes occur?
11. What is the science of lightning called?
12. What causes lightning?
13. What is the name for a mixture of heavy, slushy mixture of ice and water?
14. What is the name for the large scale motion of the atmosphere?
15. What limits the predictability of weather systems to only a week or so?
16. Is "climate" (long term average of weather) considered stable?
17. Name the 3 major cells that are responsible for transporting heat from equatorial regions to the poles
18. What is the extent of the Hadley cells?
19. Give a reason for why weather patterns differ between the northern hemisphere and southern hemisphere

20. What is the name for the surface motion of air in the equatorial Pacific, and in which direction does it generally flow?
21. What is the another name for the flow of tropical air along the equatorial Pacific?
22. Where is the tropopause highest?
23. Which type of atmospheric cell does the jet stream primarily influence?
24. What drives the vertical circulations in the equatorial regions?
25. What drives the vertical circulations in the polar regions?
26. In which cell is the Jet stream primarily found?
27. Why do land-water circulations change between day and night?
28. Under normal conditions, what is the relationship between Pacific ocean conditions in the east and west?
29. What is the formal name of the circulation in the Pacific Ocean?
30. What are some consequences of the decline of convective activity in the Western Pacific?
31. What is the "Pineapple Express"?
32. Name the phenomena associated with the Southern Oscillation