

GEOG 101 STUDY GUIDE

EXAM 02 – EARTH'S ATMOSPHERE

Readings due:

Physical Geography, Mason et al, units 11, 38, 6, 8, 9, 14-19

Questions for review:

1. How did we get water on Earth?
2. Does the amount of water on Earth change throughout the year? What is eustasy?
3. Where is at least 97% of water on Earth stored currently? Is it a useable drinking resource?
4. Fully explain the hydrologic cycle and why it is important for geographers to understand it.
5. What is evapotranspiration? Why do we care about it?
6. Define groundwater, aquifer, and water table.
7. What are four ways groundwater can be contaminated or its overuse can be harmful to humans?
8. How did Joseph Priestley discover oxygen?
9. What are the two most prevalent gasses in our modern atmosphere?
10. What is atmospheric pressure?
11. What was Joseph Kittinger's contribution to our understanding of the atmosphere?
12. What is the normal lapse rate and how does it affect Earth's temperatures?
13. How do land and water surfaces heat and cool differently?
14. What is the ozone layer and what have humans done to threaten it?
15. What are the basics of how winds form?
16. Define the Coriolis Effect.
17. Explain Hadley cells, the Asian monsoon, subtropical high-pressure cells, and trade winds. How do these affect the climates discussed in class?
18. From where do Santa Ana winds originate and how do they affect fire season in Southern California?
19. What is climatology? What is meteorology?
20. How does latitude affect temperature?
21. Explain uniform, high-sun, and low-sun precipitation patterns.
22. Fully explain the Tropical Rainforest Climate. What is the ITCZ and what does it have to do with this climate region? Where do we find this climate region?
23. Fully explain the Tropical Monsoon Climate. Where do we find these climate regions?
24. Fully explain the Tropical Savanna Climate. Where do we find this climate region?
25. Fully explain the Arid and Semiarid Climates. What is the difference? Where to we find these regions?
26. Fully explain the Humid Subtropical Climate. Where do we find this climate region?
27. Fully explain the Mediterranean Climate. Why does California have this climate?

28. Explain the different microthermal climates we discussed. Why are they so cold?
29. Explain how the Highland Climate works. Is it connected to latitude?
30. What is the Greenhouse Effect? What is albedo and how does it connect to this? Is the Greenhouse Effect a natural occurrence or anthropogenic one? How are humans connected to this?
31. How are scientists using ice cores, lake sediments, and remote sensing to study past climates?
32. What was Milutin Milankovitch's contribution to climatology?
33. What are the IPCC's very likely consequences of climate change? What else may happen? Explain why these things are a concern.

Don't forget your Scantron form and #2 pencil!