**Earth Systems Weather and Atmosphere Test Review NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Answer each review question on a separate sheet of paper.**

1. What type of energy passes from the Sun to the Earth?
2. What is the difference between weather and climate?
3. Why does the area around the equator receive more energy from the sun year round than any other areas of the Earth?
4. A large volume of air with the same humidity and temperature as its source region is known as what?
5. What are the characteristics of an air mass that forms over the southwest US and Mexico?
6. Weather Station Models:



1. What is the cloud cover?
2. What is the temperature?
3. What is the wind speed?
4. What is the wind direction?
5. What is the barometric pressure?
6. What is the dew point?
7. Answer the following questions using the map below:



1. What do the numbers represent on the map above?
2. What do the curved lines on the map represent?
3. What is the air pressure in lower Alabama?
4. What type of weather is associated with High-pressure systems?
5. What type of weather is associated with Low-pressure systems?
6. High altitude wind found in a narrow band of air that moves very fast is known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. How does a weather front form?
8. Describe a cold front. (Name 3)
9. Describe the motion of a high-pressure system that forms over the US.
10. Why do we experience curving winds on Earth?
11. How does air pressure differ on top of a mountain compared to air pressure at sea level?
12. What causes fog?
13. When the relative humidity is provided on the daily weather report, what information does this represent?
14. Describe the steps of cloud formation in order.
15. What is orographic lifting?
16. When does rain happen?
17. What causes thunder?
18. Describe the greenhouse effect.
19. Describe Tropical cyclones such as hurricanes in terms of temperature and pressure.
20. What is a storm surge?
21. Why do hurricanes form over the equator?
22. The earliest stage of storms that could possibly form hurricanes is known as \_\_\_\_\_\_\_\_\_\_\_.
23. What is the Saffir-Simpon scale?
24. What factor can cause hurricanes to weaken?
25. What is a tornado?
26. What is the Enhanced Fujita Scale (EF) and how is it used?
27. Even though we do not understand how tornadoes form, what processes are needed to produce them?
28. Rotating thunderstorms can produce tornadoes what else can they produce?
29. What is the final stage of a thunderstorm?
30. What are the steps involved in the formation of hail?