

Name: _____

Geol 250 – Examination Two Make Up

Please answer the following questions (2 points each).

1. A syringe has a volume of 50 cm^3 . What is the volume of the syringe in **liters**?

2. What would be the mass of water (in **kilograms**) that would fill the syringe in question #1?

3. What would be the mass (in **grams**) of a volume of a liquid with a density of 0.1 kg/L that would fill the syringe in question #1?

4. [**True** or **False**] A 1,000-year flood has an average recurrence interval of 1,000 years.
5. [**True** or **False**] In adiabatic cooling of a rising column of air, volume changes.
6. [**True** or **False**] Two packets of air with the same relative humidity but different temperatures contain the same mass of water per kilogram of air.
7. During melting, latent heat is [**absorbed** / **released**] (*circle one*) by the melting material.
8. [**True** or **False**] Streams flood when outflow exceeds inflow for a long enough period of time.
9. [**True** or **False**] High pressure systems are generally associated with the development of large weather systems like warm fronts and cold fronts.
10. Most of the Earth's salt water is in what phase of matter [**solid** / **liquid** / **gas**] (*circle one*)?
11. To reach its dew point temperature, a packet of unsaturated air must usually be [**heated** / **cooled**]. (*circle one*)
12. Wind blows [**clockwise** / **counterclockwise**] (*circle one*) around the center of a low pressure system (a cyclone) in the northern hemisphere.

13. Dry air in the atmosphere is composed primarily of what two gases?

14. Define: dew point temperature.

15. Describe one way greenhouse gases are added to the atmosphere in a way other than by human activity.

16. What is a stream's drainage basin?

17. A stream can carry material as dissolved load, suspended load or bed load. What is meant by suspended load?

18. What force is primarily responsible for the downward movement of water in the hydrologic cycle?

19. Hurricanes and typhoons are examples of what kind of weather phenomenon?

20. What is the defining difference between stable and unstable air?

21. What is the opposite of condensing?

22. Why is the troposphere warmest at low altitude?

23. Define: stream.

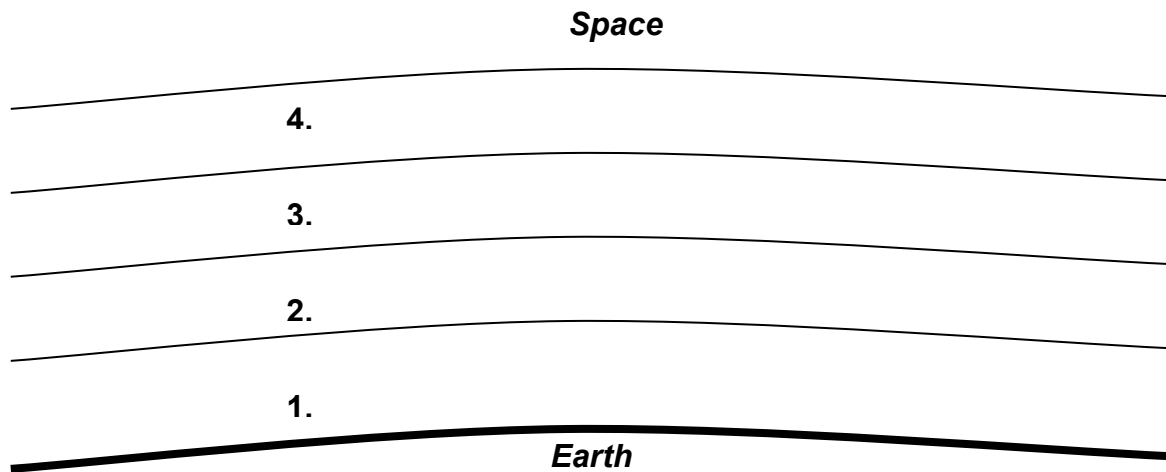
24. How do natural levees form?

25. Briefly describe two severe hazards (i.e., things that can kill you) commonly associated with thunderstorms.

Please answer the following questions (5 points each).

1. Briefly describe the life cycle of meander in a meandering stream (starting with an essentially straight segment of stream).

2. Complete the diagram below by filling in the names of the four layers of the atmosphere.



3. Earlier this month, Rock Hill experienced the following weather:

Sunday high of 70°, mostly cloudy

Monday high of 85°, heavy rain

Tuesday high of 87°, overcast skies, muggy with occasional showers

What is the simplest explanation for this change in the weather?

4. List three factors that greatly encourage the formation of clouds in a packet of air.

5. On the back of this sheet of paper, briefly explain how the "Greenhouse Effect" keeps the Earth's atmosphere warmer than it would be if there were no greenhouse gases.