

Name: _____ Date: _____

DIRECTIONS: Please complete all of the following questions. If you do not know something, **DO NOT LEAVE IT BLANK**. Make an educated guess. There will be partial credit. **DO NOT** look at anyone else's paper. If you are caught cheating, there will be major problems. Remember to budget your time. If you don't get something, skip it and come back! Good luck and enjoy!

Part I: Multiple Choice (25 pts. total, 5 pts. each)

Circle the answer to the question. If more than one is circled it will not be counted.

1. Risks involved with thunderstorms included?
a) lightning b) wind c) hail d) floods e) all of the above
2. The strongest tornado on the Fujita Classification scale is a?
a) F 0 b) F 1 c) F 3 d) F 5 e) F 9
3. Low pressure systems tend to track in this GENERAL direction.
a) West b) South c) East d) North e) Up
4. All of the following effect climate, EXCEPT
a) Latitude b) Mountains c) Bodies of water d) Satellites e) all effect climate
5. Localized climates that are different from the main regional climates are called?
a) Dry climates b) polar climates c) tropical climates d) micro climates e) mild climates

Part II: Modified True or False (30 pts. total, 5 pts. each)

The following statements are either TRUE or FALSE. If the statement is TRUE, just write TRUE. If the statement is FALSE, correct the statement by changing the underlined word to make it TRUE.

1. ____ Thermographs show daily trends in barometric pressure.
2. ____ Tornadoes and Hurricanes are the same type of violent weather system.
3. ____ Tornadoes are short lived and very violent.
4. ____ Winds within tornadoes are caused warm ocean water.
5. ____ The lower the pressure in a hurricane, the calmer the winds.
6. ____ Climate describes short term weather patterns of an area.

Part III: Drawing (12 pts. total, 4 pts each)

Sketch the direction of the prevailing westerlies between the lines below (30°N and 60°).

60°N _____

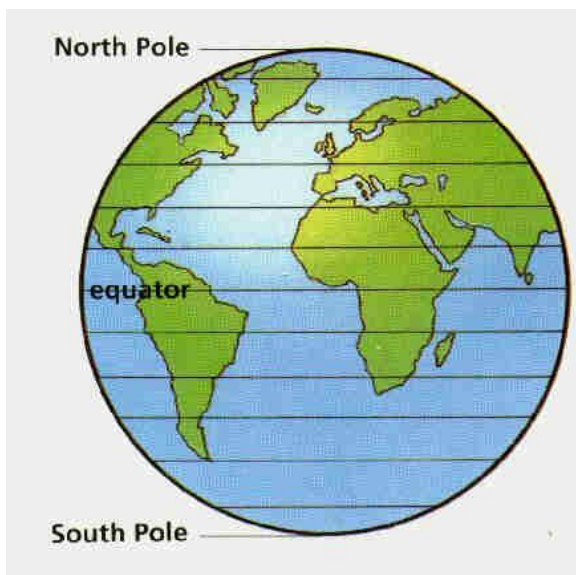
30°N _____

Sketch the direction of the trade winds between the lines below (0 and 30°N).

30°N _____

0° _____

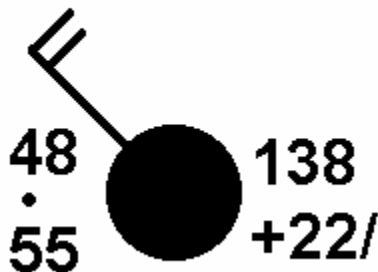
Sketch the polar, temperate and tropic climatic zones on the Earth below. Be certain to draw in BOTH the Northern and Southern hemispheres. (Note: Each latitude line is equal to 15 °)



Part IV: Conversations (10 pts. total, 1 pt. each)

From the station model below, fill in the required information to the right.

Simplified Surface-Station Model



_____ Temperature
_____ Dew point
_____ Wind speed
_____ Wind direction
_____ Barometric pressure
_____ Cloud cover

Convert the following:

- a) $40^{\circ}\text{C} = \text{_____}^{\circ}\text{F}$
- b) $\text{_____}^{\circ}\text{C} = 160^{\circ}\text{F}$
- c) $1016.0 \text{ millibars} = \text{_____} \text{ inches of Hg}$
- d) $\text{_____} \text{ millibars} = 29.30 \text{ inches of Hg}$

Part IV: Short Answer (24 pts. total, 6 pts. each)

Answer the following questions using complete and full sentences. Points will be deducted for incomplete sentences.

1. Create a simple graph showing the relationship between air temperature and barometric pressure.

2. Its 2am in the North East (USA). A thunderstorm rumbles in the night. What type of thunderstorm is it most likely? Why?

3. Describe where hurricanes get their energy from and what time of year would you expect hurricanes to be most prevalent in the Northern Hemisphere?

4. Define orographic lifting and sketch an example. Be as detailed as possible.

N O T P A R T O F T H E T E S T !

I understand that my son/daughter received a failing grade on this test. I understand that they can make corrections on the problem(s) they got wrong for one point per question added to their grade. The corrections must be made on a separate sheet of paper and the question they got wrong must be written out and correctly answered. These corrections are due the NEXT day along with your signature.

Signature: _____ Date: _____

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