arth System Science 5: THE ATMOSPHERE / Homework 4 (due 5/31/2007)

Name_____ Student ID_____

SHORT ANSWER. (6 points per question)

1) This type of air mass is responsible for much of the precipitation along the coast of western North America: _____.

2) A(n) _____ front always slopes back over itself.

3) This type of front moves very slowly, if at all: _____ front.

4) A(n) _____ front can often overrun the air mass ahead.

5) _____ air masses can form over the southwestern United States in summer, and are typically hot and dry.

6) Air masses that form over northern Siberia are most likely to be _____ air masses.

7) Air mass formed over the desert southwest of the U.S. and northern Mexico are _____ air masses.

8) _____ has two components, relative vorticity and Earth vorticity.

9) The Bergen scientists developed the idea of _____ to explain the formation of mid–latitude cyclones.

10) As opposed to cyclones, _____ are often associated with good weather.

ESSAY. (20 points per question)

11) Describe the three ways in which an occluded front can form.

12) Describe the various types of clouds that would likely occur as a mid–latitude cyclone passes over a given location, beginning with the approach of the warm front and then following by a cold front

Answer Key
Testname: HOMEWORK.4.2007.TST

SHORT ANSWER. (6 points per question)

1) maritime polar
2) cold
3) stationary
4) warm
5) Continental tropical
6) continental polar
7) continental tropical
8) Absolute vorticity
9) cyclogenesis
10) anticyclones

ESSAY. (20 points per question)