Earth System Science 5: THE ATMOSPHERE / Homework 4 (due 5/22/2006)

Name_____ Student ID_____

SHORT ANSWER. (6 points per question)

1) Cloud droplets begin forming on _____.

2) Compared to a trough, a ridge has _____ pressure.

3) This jet stream, the _____ jet stream, has a substantial influence on the weather of mid–latitude areas.

4) The agent _____ is used in cloud seeding in the hope that it will act as an ice nucleus.

5) When friction force counterbalances gravity for a falling object, that object has reached _____.

6) These are a mixture of ice and supercooled water in which the Bergeron process can take place: _____.

7) When mountains cool rapidly at night, air flows into valleys, creating a _____.

8) The equatorial low is also called the _____.

9) El Niño occurs in conjunction with changes in this atmospheric phenomenon: _____.

10) The Coriolis force acts on air moving from the subtropical high to the ITCZ to create the _____.

ESSAY. (20 points per question)

11) Briefly describe the two main methods of cloud seeding.

12) Name the order of currents that would take a molecule of water from off the coast of equatorial Africa along the coast of North America and then back to its starting point.