**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 29 January 2025**

**ATMS 265 INDIVIDUAL QUIZ#01**

Answer each of the following five questions. The quiz is worth a total of 25 points.

(1) What two factors determine the temperature at a given site within a mountain *massif* ?

(a) site’s altitude, (b) site’s exposure to incoming solar radiation {p. 6}

(2) Explain why the annual precipitation amounts in the Rockies are lower than other ranges in the U.S.

Most of the moisture that reaches the Rockies is brought by mid-lat westerlies, but most of the Pacific moisture is released as storms are carried over mntns to the west {p. 18}

(3) A lee trough that also has the characteristics of a dryline is called \_\_\_\_\_\_\_\_\_\_\_\_ {fill in the blank}.

a drytrough, p 1170 of article

(4) Describe ***briefly*** how a cold front aloft forms.

As CF moves down eastern slope of Rockies and out over Great Plains, adiabatic warming associated with downslope flow tends to erode the baroclinic zone at the sfc forming CFA {p. 1173 of article}

(5) Analysis of “the Holt storm” suggests that squall lines can be associated with what feature in the new conceptual model?

(a) arctic front at the surface

(b) cold front aloft, p. 1175, 1176 of article

(c) occluded front at the surface

(d) warm front aloft