Meteorology Global Wind Question

1. San Francisco is famous for its summertime fogs.
2. How and why do they form?

1. Why are they common during summer rather than winter?

1. Briefly describe or diagram the idealized global circulation proposed by George Hadley. What are the short-coming of the Hadley model?

1. Which factors cause air to subside between 20° and 35° latitude.
2. If Earth rotated more rapidly, the Coriolis force would be stronger. How would a faster rate of rotation affect the location (latitude) of Earth’s belts of sub-tropical high pressure?

1. Referring to the idealized three-cell model of atmospheric circulation, most of the United States is situated in which of prevailing winds?
2. Briefly explain each of the following statements that relate to the global distribution of surface pressure:
3. The only true zonal distribution of pressure exists in the region of the subpolar low in the Southern Hemisphere.

1. The subtropical highs are stronger in the North Atlantic in July than in January.

1. The subpolar low in the Northern Hemisphere is represented by individual cyclonic storms that are more common in the winter.

1. Explain the cause of the Asian monsoon. In which season (summer or winter) does it rain?

1. Why is the flow aloft predominantly westerly?

1. a. What is the ITCZ?

b. Where is it formed?

c. How does it change seasonally?

1. What latitude is the following: Subtropical high and the Subpolar Low