

## **GEOG 122 Midterm (Essay part): Review Questions**

1. **Geology:** Describe and explain the origin, building materials and life cycle of the Hawaiian Islands. What processes are responsible for the existence of the islands? What kind of materials make up the islands? How does the shape of an island change as it goes through its life cycle?
2. **Climate:** Describe and explain the mechanism behind trade winds and trade wind inversion. What is the Hadley Cell? How does the air move in the Hadley Cell? What is the trade wind inversion? What is the significance of the inversion for Hawaiian weather?
3. **Water:** Compare and contrast the fresh water availability of the windward side and leeward side of the Island of O'ahu. What is the source of fresh water? How is the fresh water stored in nature? How much is available? What is the implication of the current fresh water availability for our future development?
4. **Plants and animals:** Compare and contrast the native Hawaiian ecosystems and the Hawaiian ecosystems today. Name the different kinds of terrestrial and marine ecosystems. Which ecosystems are severely altered by human settlement of the Hawaiian Islands? Which are still remaining? What is the significance of these changes?