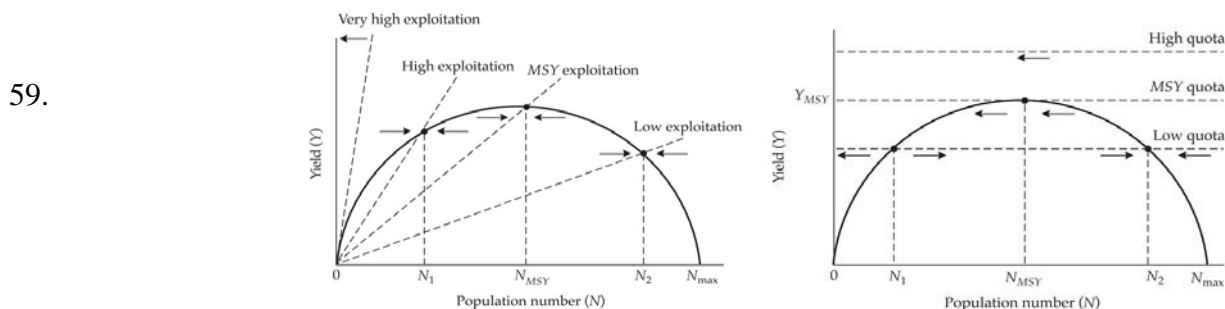


SAMPLE EXAM FOR 315

29. The international law that regulates the sale and trade of animals, plants, and their derivatives is called:
 a) Endangered Species Act, b) Pittman-Robertson Act, c) IUCN, d) CITES, e) there is no law that does this.
30. The random fluctuation of gene frequencies over time due to chance alone is referred to as: a) fixation, b) gene pooling, c) outbreeding depression, d) inbreeding depression, e) none of these.
33. Data over the past 650,000 years indicate that there is strong positive relationship between temperature and:
 a) methane levels, b) carbon dioxide levels, c) precipitation, d) chlorofluorocarbon levels, e) none of these, with the pre-1900 having been primarily obtained by studying _____.
44. You find yourself at a social gathering and engaged in a conversation with a molecular ecologist who studies *E. coli* bacteria genome structure. He asks you whether conservation biology really differs from most other sciences or is it just a patchwork collection of other sciences. Answer this question in a way that defends conservation biology as a unique and independent field of study using the appropriate terminology (4 pts).
46. **Explain and compare/contrast** the following 3 philosophies: 1) Romantic-Transcendental Conservation ethic of Emerson, Thoreau, and Muir, 2) Resource Conservation Ethic of Pinchot, and 3) Evolutionary Ecological Land Ethic of Leopold. **What would each propose as the central operating management strategy** for the Tongass National Forest in southeastern Alaska, Earth's largest temperate rain forest (8 pts.).
50. Earth has experienced 5 major extinction events in its history. If extinction is a normal process, and if life has diversified after each mass extinction, why should we be worried about current high rates of extinction? (3 pts.) How does the current extinction phenomenon differ from previous ones? (2 pts.)
73. Draw a diagram that illustrates a simplistic model of a biosphere reserve system and describe the major role of each component of this reserve (6 pts.).



Circle the correct letter. The graphs above represent 2 commonly used strategies of species exploitation. Which of these (**A** or **B**) refers to constant quota exploitation? Which of these (**A** or **B**) is most commonly used in third world countries or those countries unable to afford natural resource management programs? Which of these (**A** or **B**) strategies ties harvest numbers directly to population size? (3 pts.)

76. Explain how you would design an effective **continental** strategy for conserving biodiversity in North America given the current land use patterns. Incorporate what you've learned about scales of approach, design, connectivity, linkages, and major *supporting* and *detrimental* influences on biodiversity. (8 pts.). Use the back of this page if necessary.