

Fire Behavior and Ecology
Exam No. 2 - 4/11/83

- (15) 1. Two foresters are having a serious argument about how to manage Douglas-Fir. One forester is from western Oregon and argues that the only way to manage Douglas-Fir is by clear-cutting. The other forester is from central Colorado and argues that the only way to manage Douglas-Fir is by selective-cutting (remove only 1/3 of saw-log trees when an area is logged). Can you shed any light as to why each of these foresters may be right for their particular areas?

- (15) 2. Fire suppression has been our way to manage all plant communities for years until recently. Make a case for or against fire suppression. Will fire suppression reduce acreage that burns over a long period of time? e.g. California chaparral.

- (15) 3. Historically, many ponderosa pine communities, particularly in the Southwest, burned every 7 to 10 years. What are the ramifications of introducing prescribed burning at 7 to 10 year intervals in these same communities today? Can we do it? If so, how? If not, what should be done?

(10) 4. Describe the "natural" succession pattern after burning in a ponderosa pine community.

(10) 5. Circle the species below that are very tolerant of fall burns.

- | | |
|------------------------|------------------|
| a. Redstem ceanothus | f. Bitterbrush |
| b. Idaho fescue | g. Chokecherry |
| c. Pinegrass | h. Spiraea |
| d. Guanum | i. Huckleberries |
| e. Shinyleaf-ceanothus | j. Serviceberry |

- (15) 6. California chaparral is very well adapted to fire, even though it burns readily after a stand is 35 to 40 years old. Why is it so well adapted to fire? Why is fire good for this community? How frequently should fires occur?

(10) 7. How does California chaparral differ from Arizona chaparral relative to species composition, rainfall patterns, and fire frequency?

(10) 8. What is Oak Brush? Where does it grow? What can you say about the plant community? Is fire good or bad for this community?