

CSCI 5832 Quiz 2 Spring 2006

Name: _____

On my honor, as a University of Colorado at Boulder student, I have neither given nor received unauthorized assistance on this work. _____.

1. (5 points) Consider the following not very good grammar:

S → NP VP	NP → Sally
VP → Verb NP	NP → Boulder
VP → Verb NP PP	NP → springtime
NP → NP PP	Verb → loves
PP → P NP	P → in

Show two parse trees for the following sentence (use the back of the page):

Sally loves Boulder in springtime.

2. (10 Points) Assume you're using the Earley algorithm. Show the contents of the first three table entries given this example (use the back of the page).
3. (5 Points) True or False: The grammar given above is directly suitable for use with the CKY parsing algorithm.
4. (5 Points) Describe the probabilities used by Probabilistic CFG parsing. Use the VP rules given above as a concrete example.
5. (15 Points): Advanced probabilistic parsers make use of various additional probabilities beyond simple rule probabilities. Describe two such probabilities that might reasonably help with choosing the correct parse for the example from question 1. Describe succinctly the counts you would have to have to get those probabilities.