

CSE 567 HW4

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Q.1)

Original Rules –

$NP \rightarrow DT\ N$
$N \rightarrow N\ PP$
$N \rightarrow Adj\ N$
$PP \rightarrow P\ NP$
$S \rightarrow NP\ VP$
$VP \rightarrow IV$
$VP \rightarrow TV\ NP$
$VP \rightarrow DTV\ NP\ NP$
$VP \rightarrow VP\ PP$
$VP \rightarrow SV\ S$
$NP \rightarrow PN$
$NP \rightarrow PRP$

CNF tagging for- ‘The evidence in the stolen car proves you stalked Robin’

DT -> The

N -> evidence

P -> in

DT -> the

Adj, TV -> stolen

N -> car

TV, SV -> proves

NP -> you (NP -> PRP and PRP -> you. This gets reduced to NP -> you)

TV -> stalked

NP -> Robin (NP -> PN and PN -> Robin. This gets reduced to NP -> Robin)

CKY Parse Chart

Span Length											
10	S										
9	-	-									
8	S	-	-								
7	-	-	-	S							
6	NP	-	-	-	-						
5	-	N	-	S	-	-					
4	-	-	PP	-	-	-	VP				
3	-	-	-	NP	-	-	-	S			
2	NP	-	-	-	N	-	VP	-	VP		
1	DT	N	P	DT	Adj, TV	N	TV, SV	NP	TV	NP	
	The	evidence	in	the	stolen	car	proves	you	stalked	Robin	